CMT-LS1

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

- CMT-LS1 is composed of following models.
  As for the service manual, it is issued for each component model, then, please refer to them.

COMPONENT MODEL NAME

COMPACT DISC RECEIVER SYSTEM	HCD-LS1
SPEAKER SYSTEM	SS-CLS1

SPECIFICATIONS

Desktop stand

Dimensions (w/h/d)	184 x 218 x 140 mm
Mass	Approx. 0.5kg
Dimensions (w/h/d)	184 x 218 x 140 mm

Wall hanging adapter

Dimensions (w/h/d)	180 x 220 x 39 mm
Mass	Approx. 0.5kg

Wall hanging bracket

Dimensions(w/h/d)	180 x 220 x 12 mm
Mass	Approx. 0.4kg

General

Power requirements	
North American model:	120 V AC, 60Hz
European model:	230 V AC, 50/60Hz
Other models:	220 - 240 V AC, 50/60Hz
Power consumption	25 W
Dimensions	192 x 295 x 150 mm (w/h/d, incl. projecting parts, controls and desktop stand)
Mass	Approx. 4.0 (with Desktop stand) kg
Supplied accessories	Remote commander (1) AM loop antenna (1) FM wire antenna (1) Desktop stand (1) Wall hanging adapter (1) Wall hanging bracket (1) Screws for stand or adapter M4 x 14 (4) Dust caps (3)

Designs and specifications are subject to change without notice.

PARTS LIST

Part No.	Description	Remark
	ACCESSORIES & PACKING MATERIALS **********	
1-418-640-11	REMOTE COMMANDER (RM-SLS1)	
1-754-148-11	AM LOOP ANT	
1-792-827-11	LEAD (WITH CONNECTOR)	
3-867-817-11	MANUAL, INSTRUCTION (ENGLISH)	
3-867-817-21	MANUAL, INSTRUCTION (FRENCH, SPANISH)	
3-867-817-31	MANUAL, INSTRUCTION (GERMAN, DUTCH)	
3-867-817-41	MANUAL, INSTRUCTION (PORTUGUESE, ITALIAN)	
3-867-817-51	MANUAL, INSTRUCTION (DANISH, FINNISH, SWEDISH)	
3-867-817-51	MANUAL, INSTRUCTION (CHINESE)	
4-229-135-61	WALL STAND	
4-229-136-01	WALL STAND PLATE	
4-229-137-01	DISK STAND	
4-229-138-01	STAND CUSHION (A)	
4-229-139-01	STAND CUSHION (B)	
4-229-140-01	LINE JACK CAP	
4-982-828-11	COVER, BATTERY (FOR RM-SLS1)	
7-682-564-09	SCREW +B 4X14	

COMPACT COMPONENT SYSTEM

SONY®

9-929-062-11

Sony Corporation
Home Audio Division Company

2000B001682-1
Printed in Japan ©2000.2
Published by Quality Assurance Dept.

HCD-LS1

SERVICE MANUAL

US Model
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E Model

HCD-LS1 is the Amplifier, CD player and Tuner section in CMT-LS1.

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	HG-1
Optical Pick-up Name	KSS-540A

SPECIFICATIONS

Amplifier section

For the U.S. model

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 4 ohm loads both channels driven, from 120–10,000 Hz; rated 10 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

North American model:

Continuous RMS power output (Reference)
16 + 16 watts
(4 ohms at 1 kHz, 10% THD)

European model:

DIN power output (Rated) 11 + 11 watts
(4 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
16 + 16 watts
(4 ohms at 1 kHz, 10% THD)

Other models:

DIN power output (Rated) 11 + 11 watts
(4 ohms at 1 kHz, DIN, 240 V)
11 + 11 watts
(4 ohms at 1 kHz, DIN, 220 V)
Continuous RMS power output (Reference)
16 + 16 watts
(4 ohms at 1 kHz, 10% THD, 240 V)
16 + 16 watts
(4 ohms at 1 kHz, 10% THD, 220 V)

Inputs	TAPE IN (stereo mini jack): voltage 250 mV, impedance 47 kilohms
Outputs	TAPE OUT (stereo mini jack): 1Vrms at CD Full Bit Play, impedance 1 kilohm CD OUT: Optical PHONES (stereo mini jack): accepts headphones of 8 ohms or more SPEAKER: speaker system 4 ohms

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780 nm) Emission duration: continuous
Laser output	Max. 44.6 μW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response	20 Hz – 20,000 Hz (±3.0 dB)

– Continued on next page –

COMPACT DISC RECEIVER

SONY®

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	
North American model:	87.5 – 108.0 MHz (100 kHz step)
Other models:	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
North American model:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
European model:	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Intermediate frequency	450 kHz

Desktop stand

Dimensions (w/h/d)	184 × 218 × 140 mm
Mass	Approx. 0.5 kg

Wall hanging adapter

Dimensions (w/h/d)	180 × 220 × 39 mm
Mass	Approx. 0.5 kg

Wall hanging bracket

Dimensions (w/h/d)	180 × 220 × 12 mm
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Designs and specifications are subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

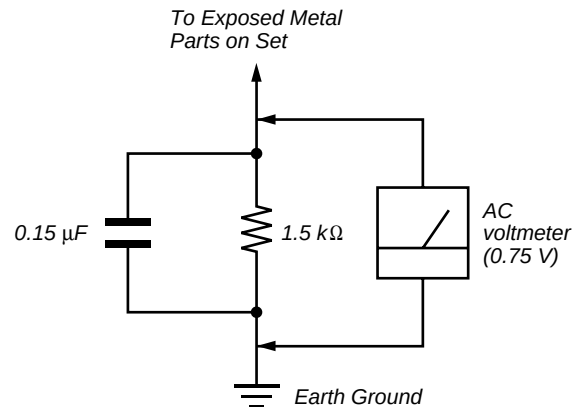


Fig. A. Using an AC voltmeter to check AC leakage.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

DISC EJECTION IN EMERGENCY

In case of emergency, remove the discs inside the Mechanism Ass'y (CD Changer) as follows:

(1) Disconnect the power of the Main Unit.
(2) Remove the Mechanism Ass'y. Refer to item
(3) Remove two top cover fastening screws at the rear of the Mechanism Ass'y, and take off the Top Cover HS Ass'y. Refer to Fig. A.
(4) Remove the left side adhesive label (Dust Seal EMA SL) on the left side of the Mechanism Ass'y. Refer to Fig. A.
Note: Carefully remove it since it is used again later.
(5) Turn the Emergency Gear SL up or down until the disc lock sleeve SL is lowered as shown in Fig. B.
Caution: **Never use nail** when turning the Emergency Gear SL. Otherwise, the **gear tooth may be broken**.
(6) Raise the front section of the Mechanism Ass'y as illustrated in Fig. B. Then carefully spread the Loading L/R MF Ass'y so that the disc drops into the Stocker.
(7) While keeping the Loading L/R MF Ass'y spread, remove the discs.
Note: When removing the discs, take care not to scrape them against other parts, to prevent damage.
(8) Replace the removed parts by reversing the above procedure.
Note: To prevent dust from entering the unit, reattach the adhesive label on the opening for the Emergency Gear SL.
(9) Perform the mechanism initialization as follows to clear the disc information stored in the Mechanism Ass'y.
Press the **DISC1** button while pressing the **DISC5** button. Then, the Unit enters the CD Playback mode and mechanism Initialization operation begins and disc change operation starts. After that, the Unit enters Standby mode.

DISC1 + **DISC5**

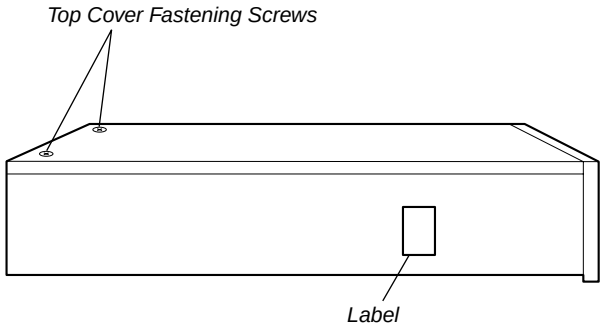
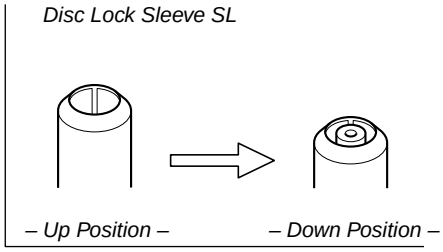


Fig. A



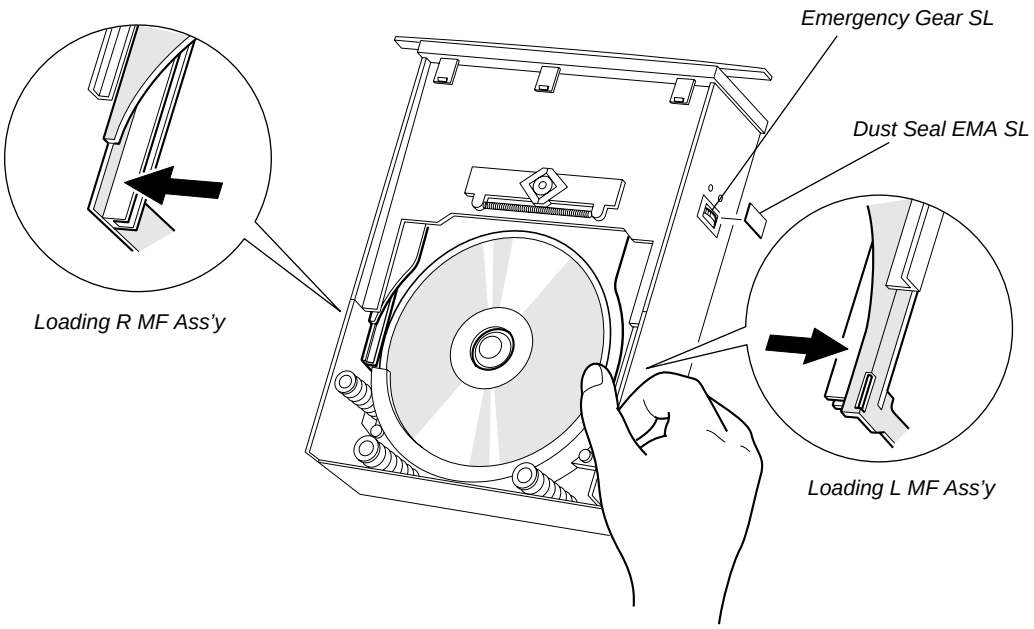
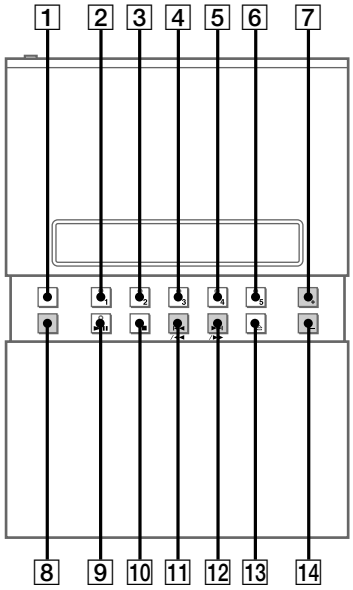


Fig. B

SECTION 2
GENERAL

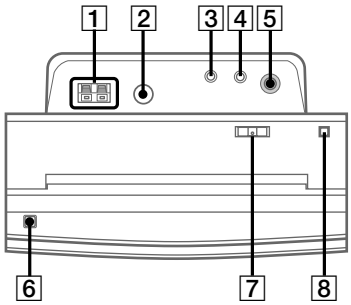
• LOCATION OF CONTROLS

– Front View –



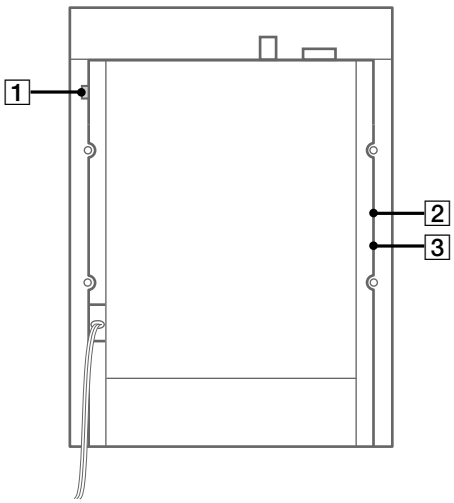
1 FUNCTION button
2 DISC 1 button and indicator
3 DISC 2 button and indicator
4 DISC 3 button and indicator
5 DISC 4 button and indicator
6 DISC 5 button and indicator
7 VOLUME + button
8 TUNER/BAND button
9 ▶II button and indicator
10 ■ button
11 I◀◀ ◀◀ , TUNER - button
12 ▶▶I ▶▶ , TUNER + button
13 ⏏ button
14 VOLUME - button

– Top View –



1 AM ANTENNA terminals
2 FM ANTENNA jack
3 TAPE OUT jack
4 TAPE IN jack
5 PHONES jack
6 I/⏻ button
7 PANEL OPEN switch
8 PANEL OPEN/CLOSE switch

– Rear View –



1 CD DIGITAL OUT (OPTICAL) connector
2 LEFT SPEAKER terminals
3 RIGHT SPEAKER terminals

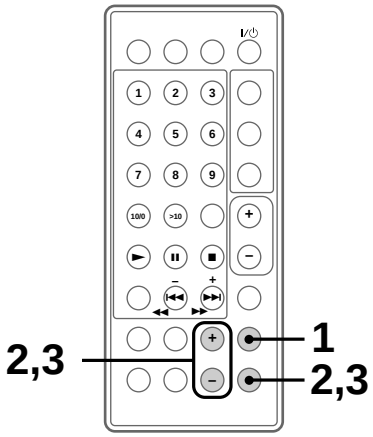
This section is extracted from instruction manual.

Step 2: Setting the time

You must set the time before you can use the timer functions.

The clock is on a 24-hour system for the European model, and a 12-hour system for other models. The 24 hour system model is used for illustration purposes.

Set the time before turning on the power.

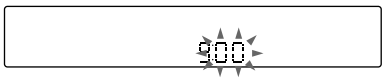


1 Press CLOCK/TIMER SET while the power is off.

The hour indication flashes.

2 Press +/– to set the hour then press ENTER.

The minute indication flashes.



3 Press +/– to set the minute then press ENTER.

The clock starts.

To change the time

You can change the preset time while the power is on.

1 Press CLOCK/TIMER SET.

2 Press +/– repeatedly until “SET CLOCK” appears then press ENTER.

3 Repeat steps 2 and 3 of “Setting the time”.

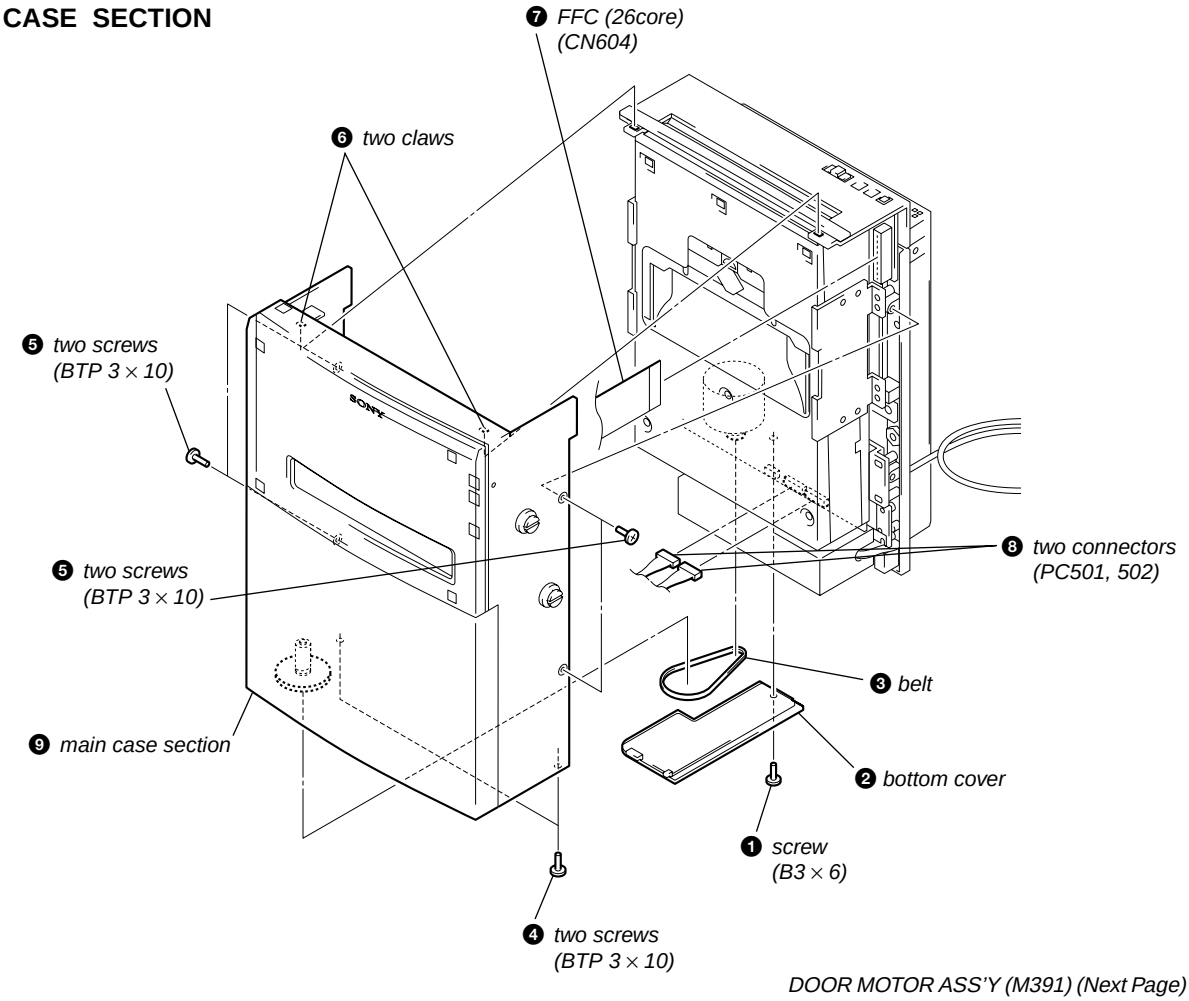
Tips

- If you have made a mistake, start again from step 1.
- The built-in clock shows the time in the display while the power is off.
- The upper dot flashes for the first half of a minute (0 to 29 seconds), and the lower dot flashes for the last half of a minute (30 to 59 seconds).

SECTION 3
DISASSEMBLY

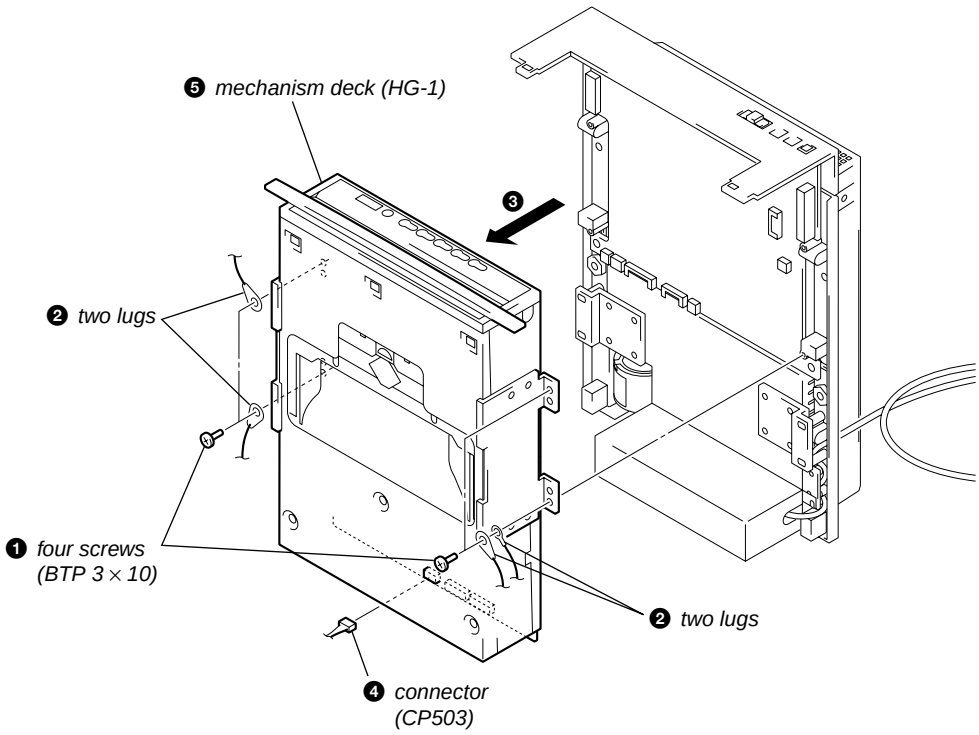
Note: Follow the disassembly procedure in the numerical order given.

MAIN CASE SECTION

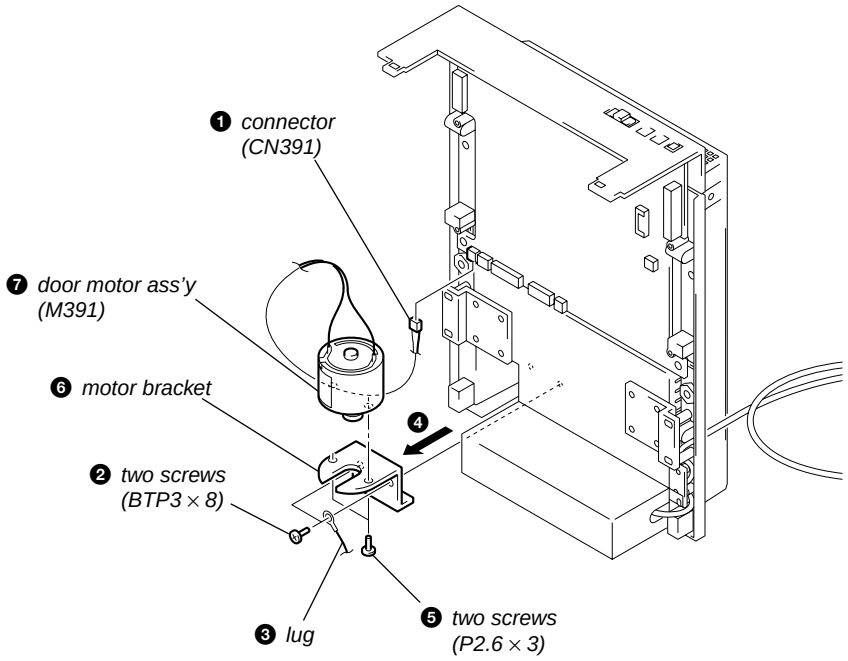


DOOR MOTOR ASS'Y (M391) (Next Page)
HOLDER MECHA, DUST SEAL EMA SL
(Page 9)

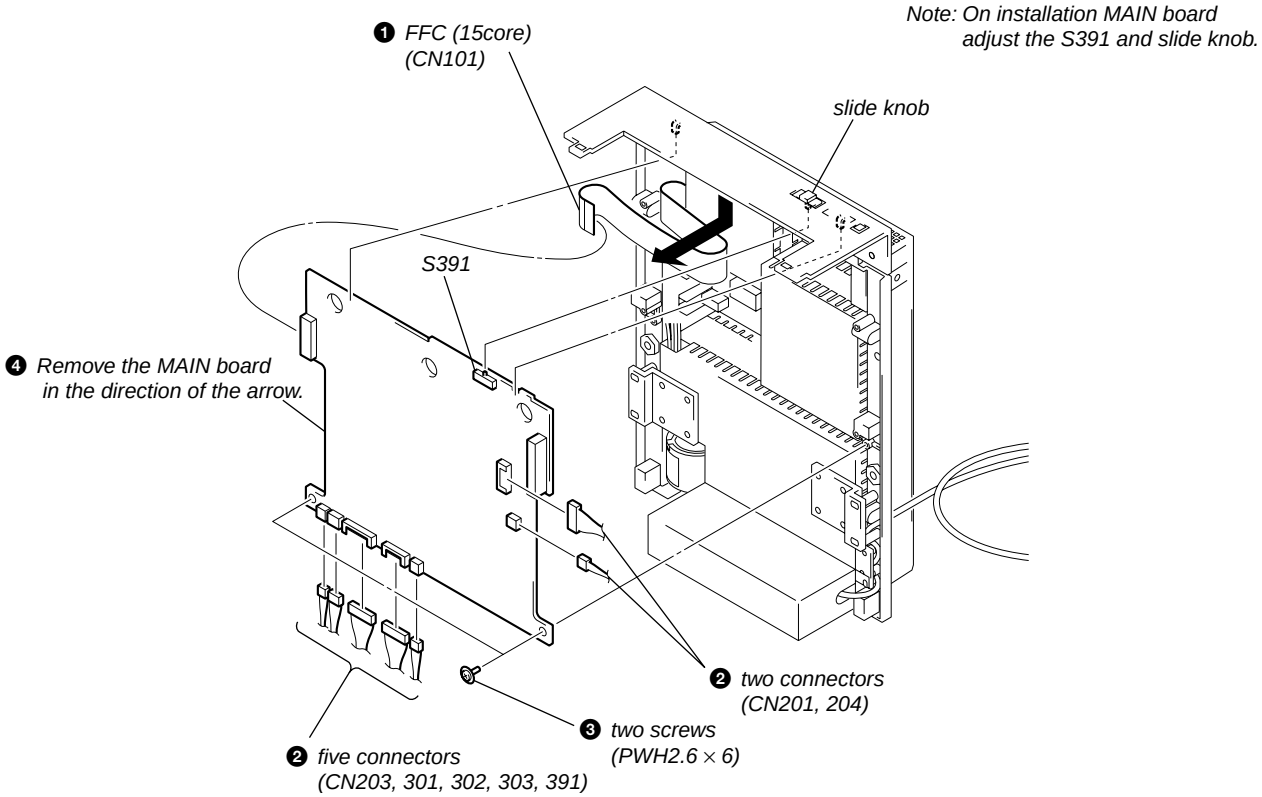
MECHANISM DECK (HG-1)



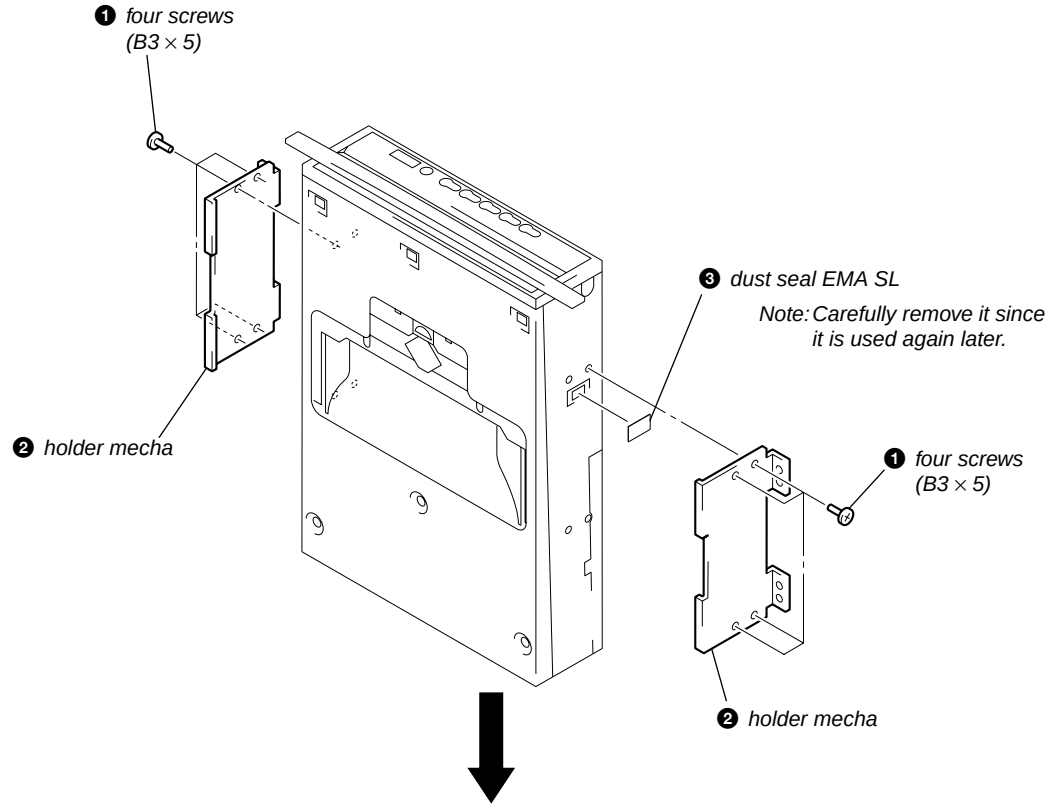
DOOR MOTOR ASS'Y (M391)



MAIN BOARD


Note: On installation MAIN board adjust the S391 and slide knob.
❶ FFC (15core) (CN101)
slide knob
S391
❹ Remove the MAIN board in the direction of the arrow.
❷ two connectors (CN201, 204)
❸ two screws (PWH2.6 × 6)
❷ five connectors (CN203, 301, 302, 303, 391)

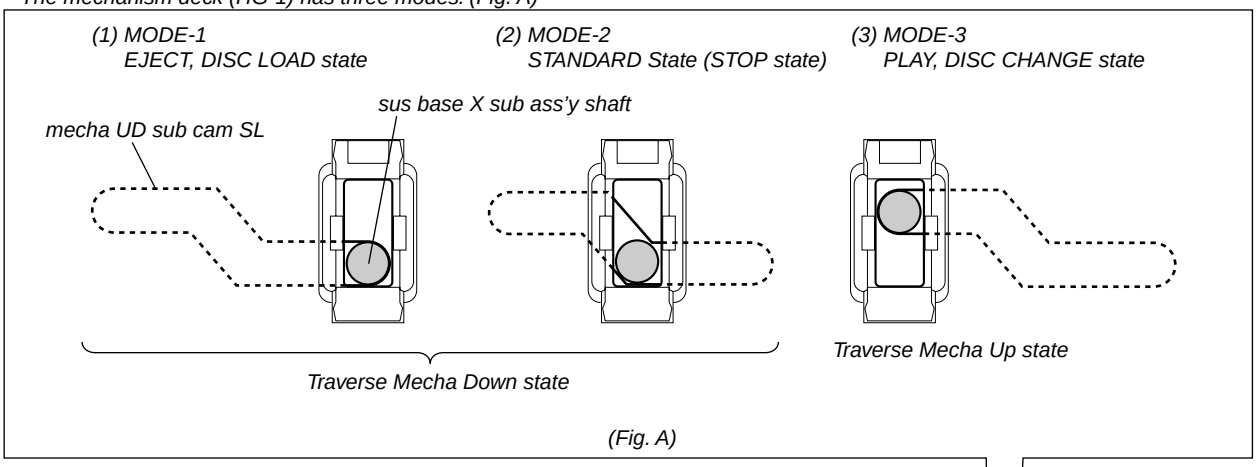
HOLDER MECHA, DUST SEAL EMA SL



PRECAUTIONS ON DISASSEMBLING AND REASSEMBLING MECHANISM DECK

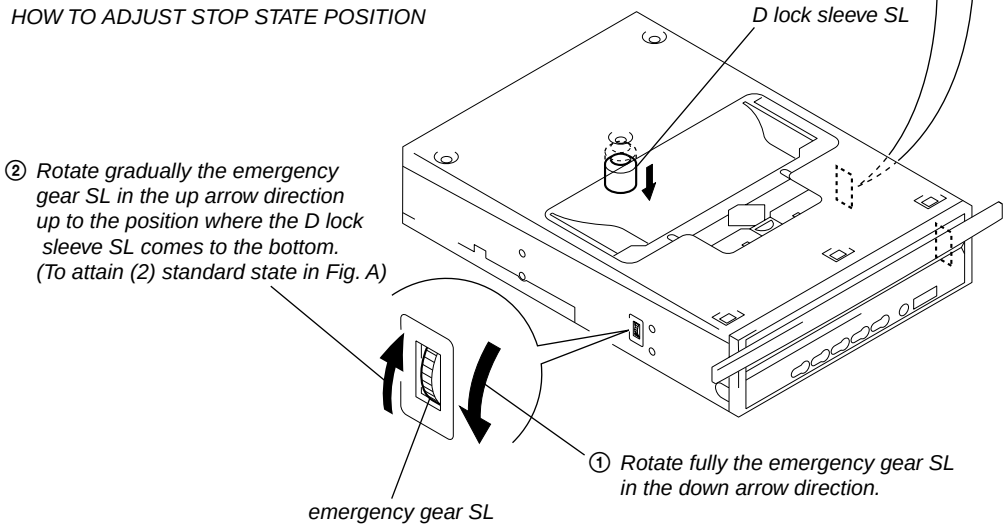
When disassembling and reassembling the mechanism deck by any failure, the mechanism deck must be in (2) Standard state (STOP state) as shown below.

• The mechanism deck (HG-1) has three modes. (Fig. A)

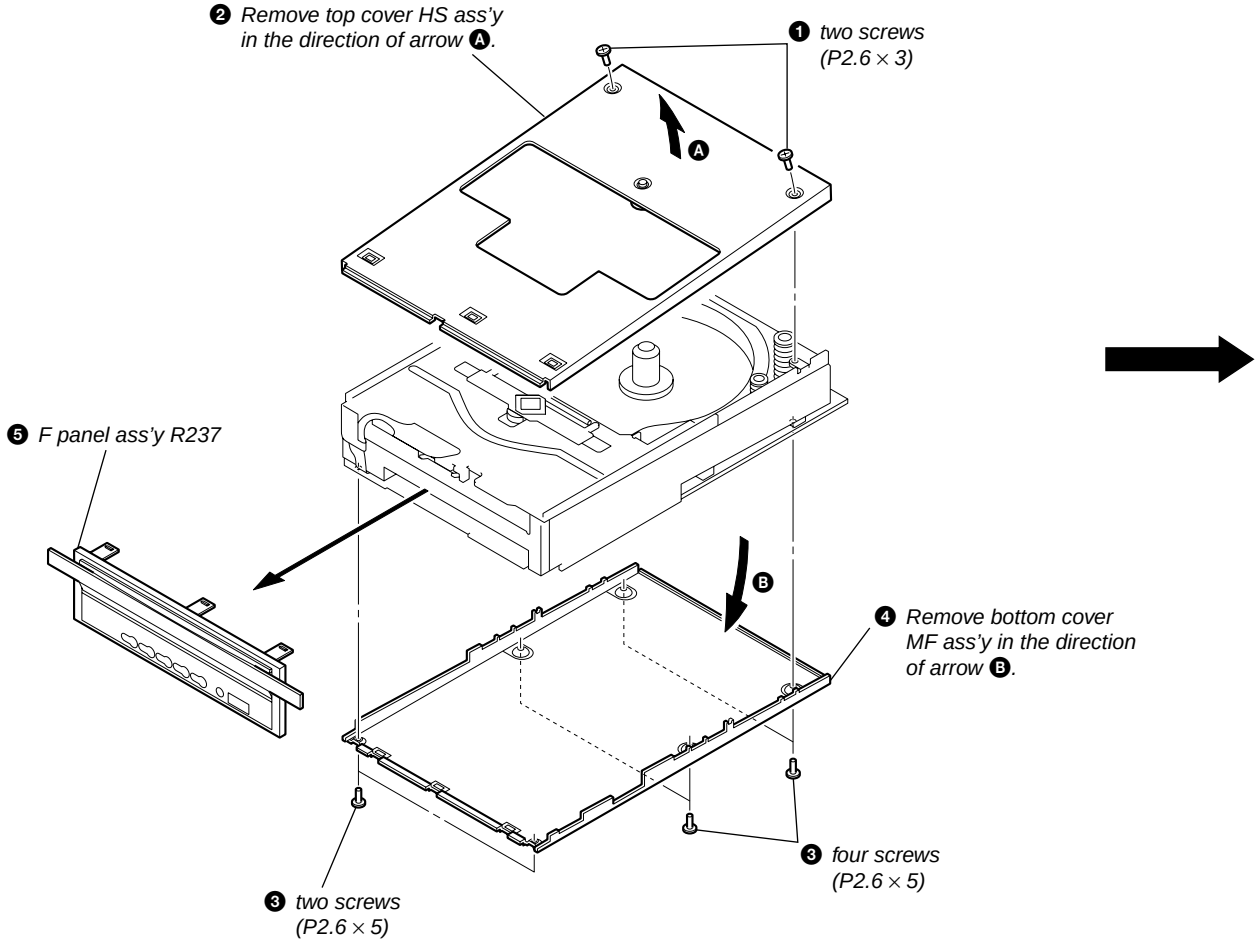


(Fig. A)

HOW TO ADJUST STOP STATE POSITION


D lock sleeve SL
② Rotate gradually the emergency gear SL in the up arrow direction up to the position where the D lock sleeve SL comes to the bottom. (To attain (2) standard state in Fig. A)
① Rotate fully the emergency gear SL in the down arrow direction.
emergency gear SL

TOP COVER HS ASS'Y, BOTTOM COVER MF ASS'Y, F PANEL ASS'Y R237


❷ Remove top cover HS ass'y in the direction of arrow Ⓐ.
❶ two screws (P2.6 × 3)
Ⓐ
❺ F panel ass'y R237
Ⓑ
❹ Remove bottom cover MF ass'y in the direction of arrow Ⓑ.
❸ four screws (P2.6 × 5)
❸ two screws (P2.6 × 5)

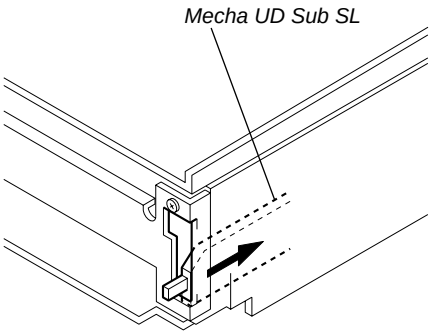
Note: 1. Before reassembling F Panel Ass'y R237 be sure that the end of the Mecha UD Sub Cam SL on the right front does not protrude as shown in (Fig. B.1). If it protrudes, move it backward as follows:

1) Carefully remove the left side adhesive label (Dust Seal EMA SL) on the left side of the unit. refer to (Fig. B.2)

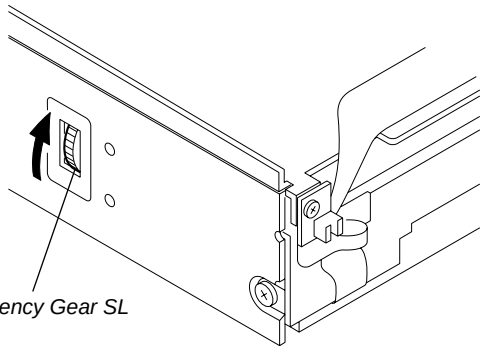
*2) Turn the Emergency Gear SL with your finger tip in the direction of the arrow until the end of the Mecha UD Sub Cam SL is drawn inside the unit. (See Fig. B.2). When turning the Gear, **DO NOT use nail** as the gear tooth can be broken.*

3) Reattach the adhesive label (Dust Seal EMA SL).

Note: 2. Be sure that the claws of F Panel Ass'y R237 are securely inserted into each holes in Top Cover HS Ass'y and Bottom Cover MF ass'y.

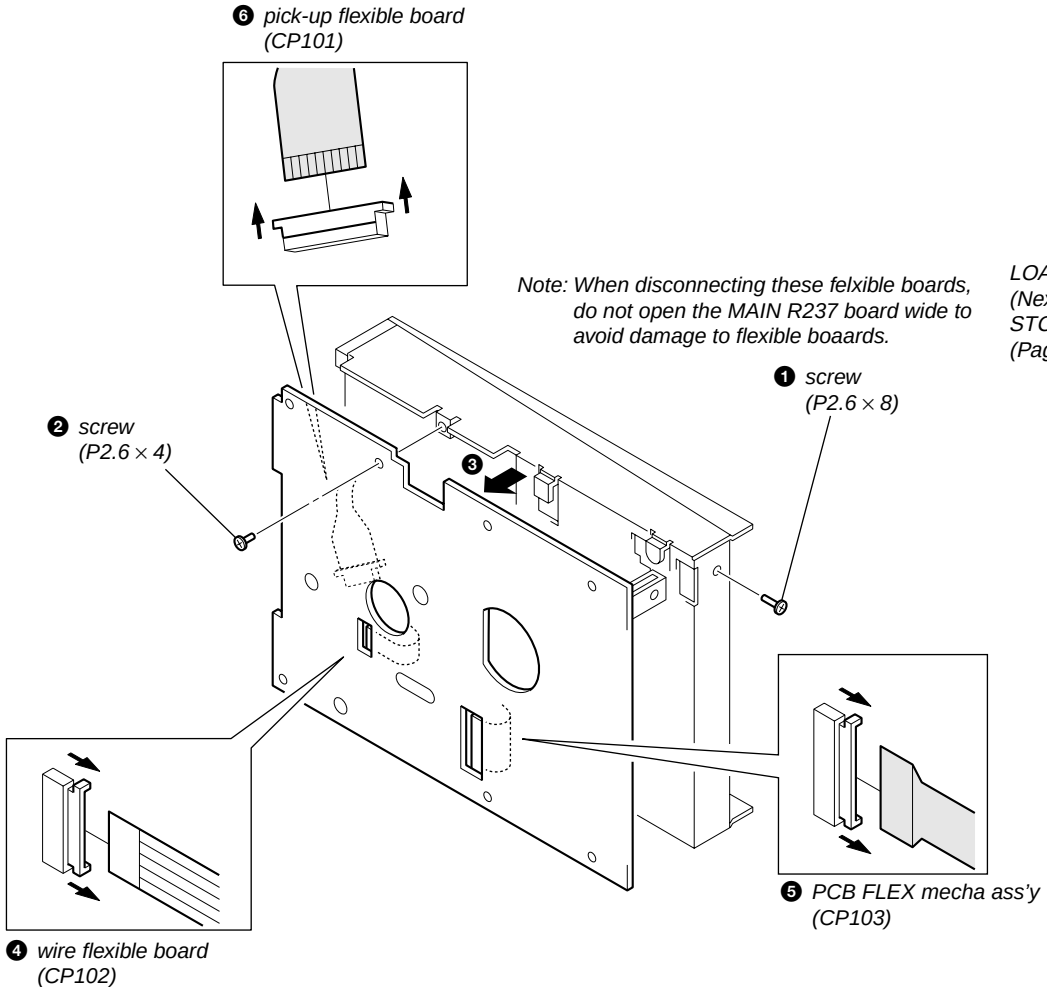


(Fig. B.1)



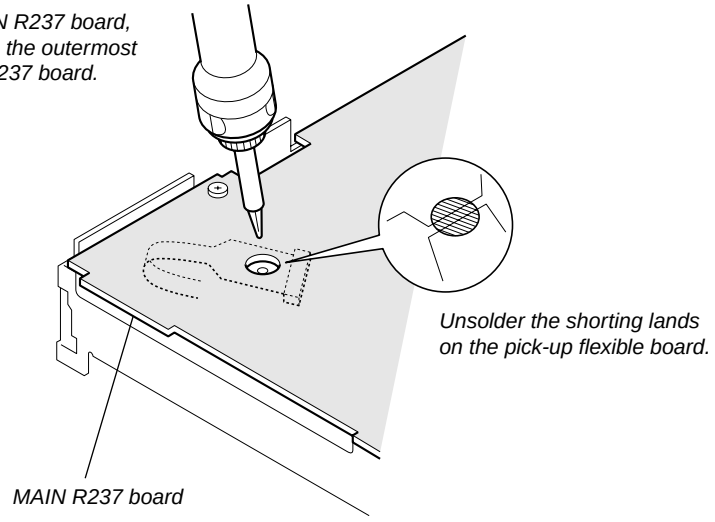
(Fig. B.2)

MAIN R237 BOARD


❻ pick-up flexible board (CP101)
Note: When disconnecting these felxible boards, do not open the MAIN R237 board wide to avoid damage to flexible boaards.
LOADING MF ASS'Y (Next Page)
STC POS GEAR SL (Page 18)
❶ screw (P2.6 × 8)
❷ screw (P2.6 × 4)
❸
❹ wire flexible board (CP102)
❺ PCB FLEX mecha ass'y (CP103)

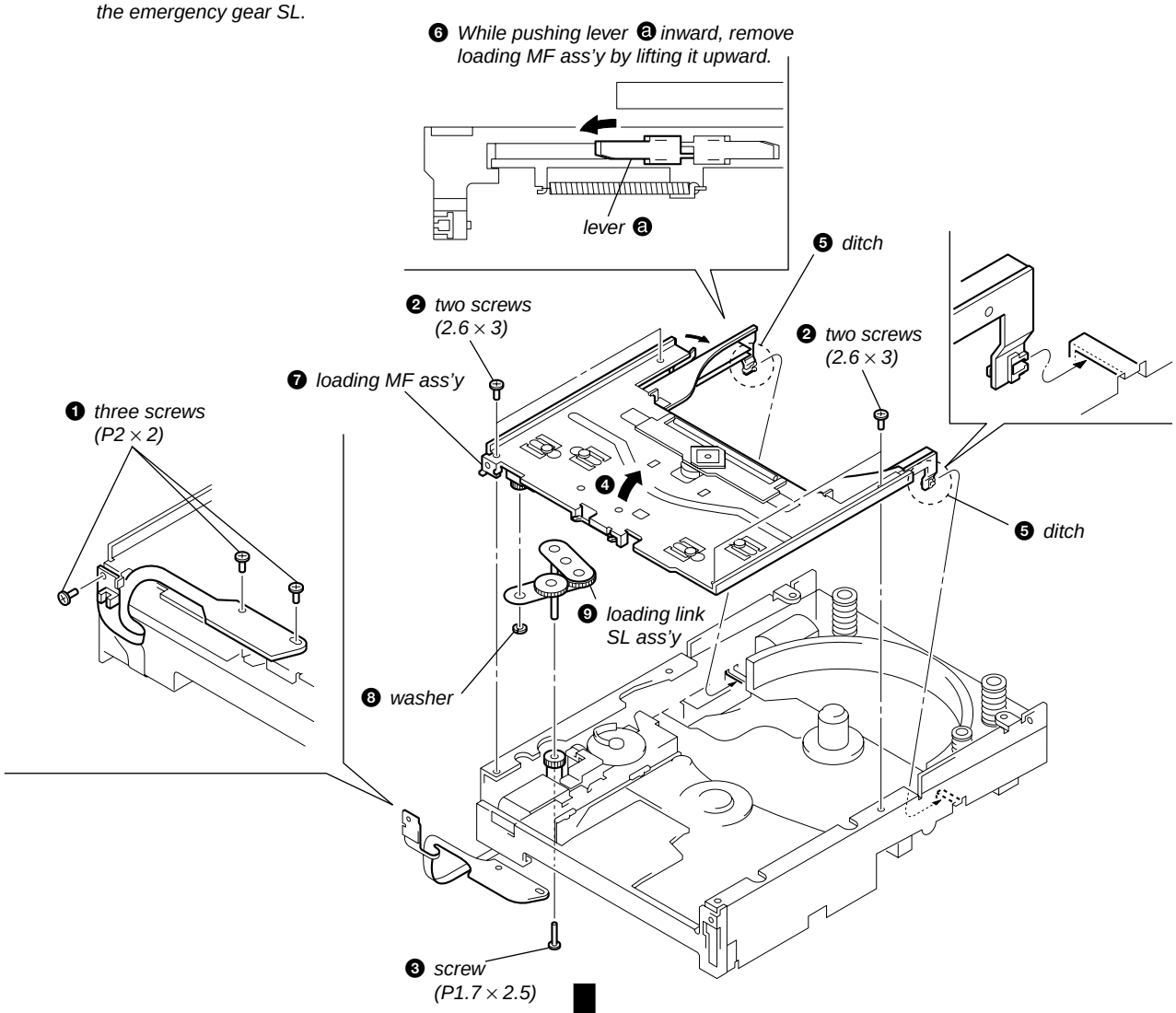
INSTALLING THE MAIN R237 BOARD

Note: To allow easier installation of the MAIN R237 board, move the optical pick-up KSS-540A to the outermost position, before removing the MAIN R237 board.

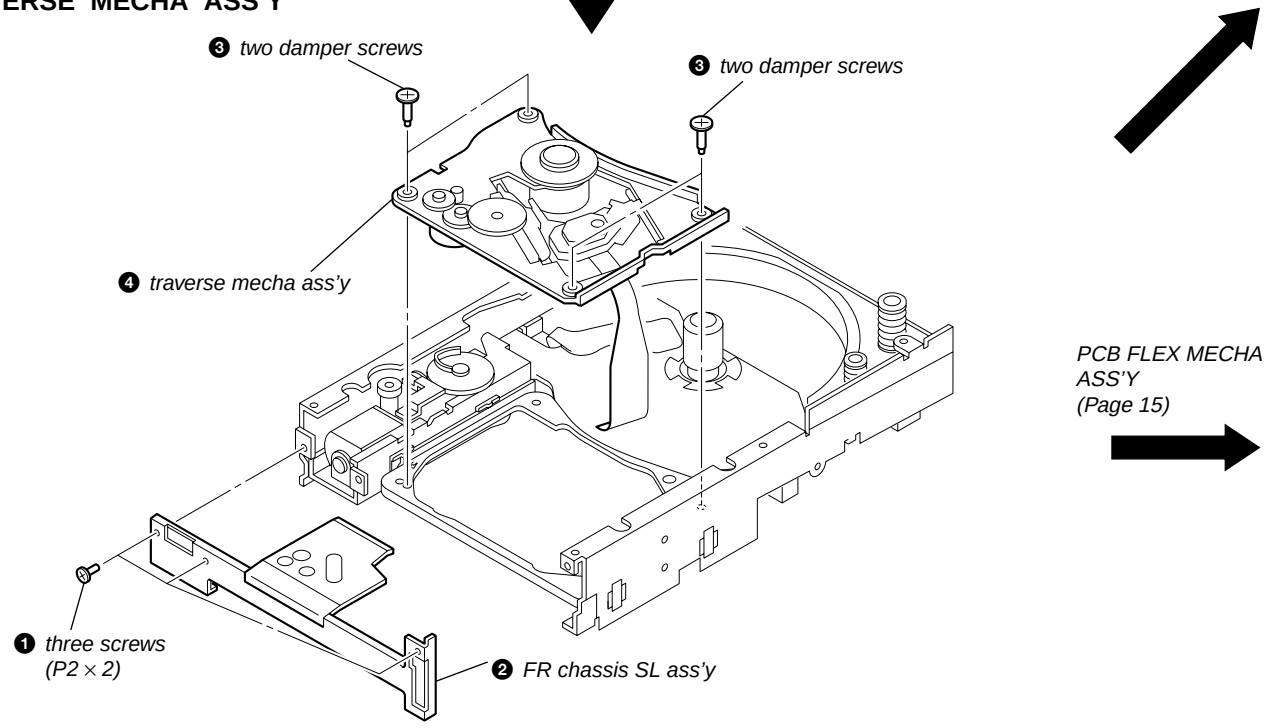


LOADING MF ASS'Y

Note: Though the cam of the Mecha UD sub cam SL will be in (1) state in (Refer to page 9. Fig. A) when the loading MF Ass'y is assembled, set in (2) state in (Refer to page 9. Fig. A) using the emergency gear SL.

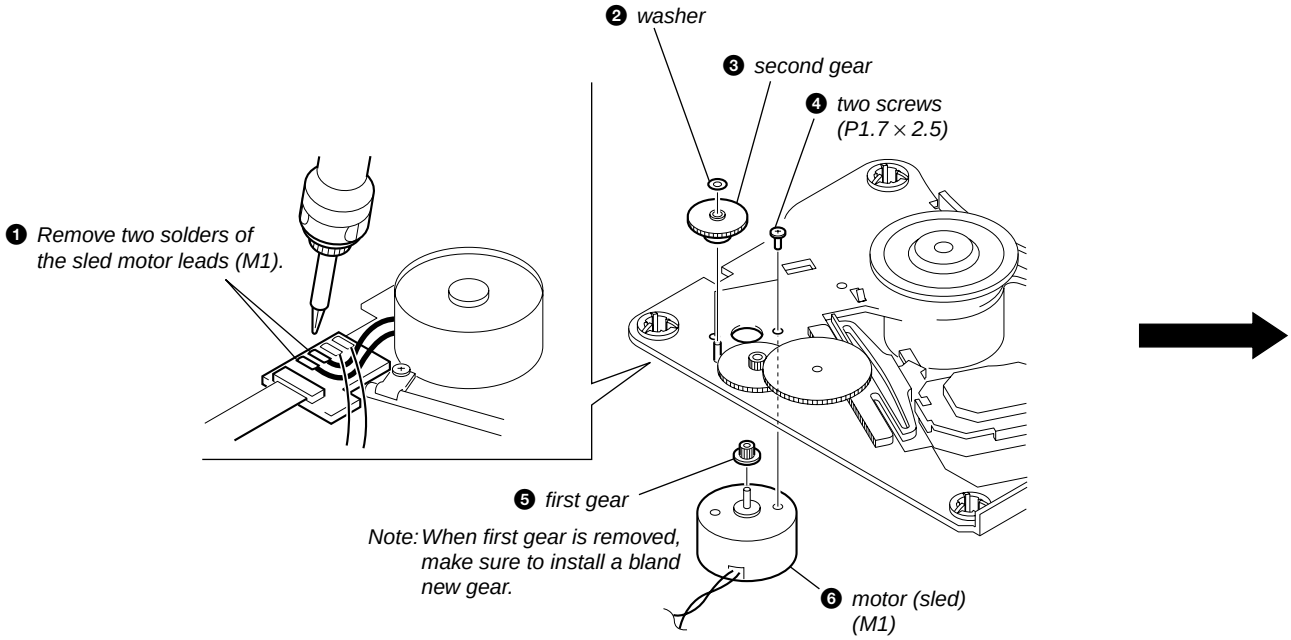

❻ While pushing lever ⓐ inward, remove loading MF ass'y by lifting it upward.
lever ⓐ
❺ ditch
❷ two screws (2.6 × 3)
❷ two screws (2.6 × 3)
❼ loading MF ass'y
❶ three screws (P2 × 2)
❹
❺ ditch
❾ loading link SL ass'y
❽ washer
❸ screw (P1.7 × 2.5)

TRAVERSE MECHA ASS'Y



PCB FLEX MECHA ASS'Y (Page 15)

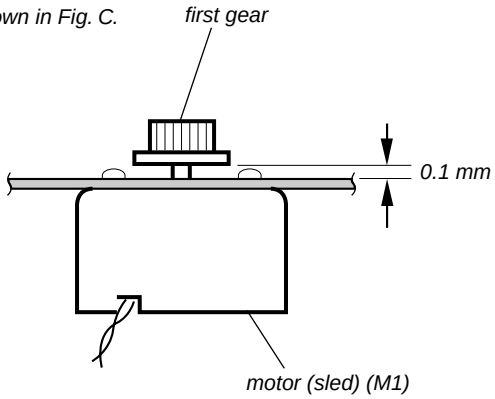
MOTOR (SLED) (M1)



Note: Pay attention to the motor (sled) installing direction.

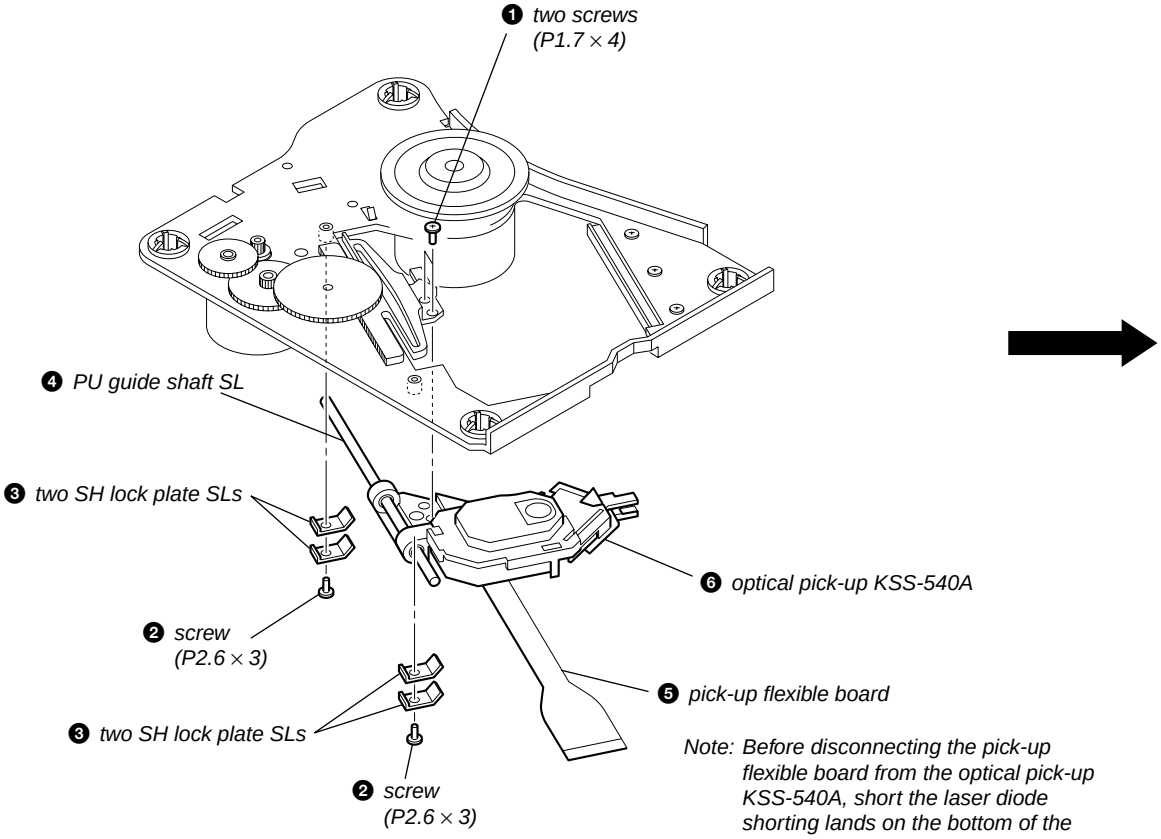
INSTALLING A MOTOR (SLED) (M1)

Note: Press fit a new first gear so that the gap between the chassis surface and the bottom of first gear is 0.1mm as shown in Fig. C.



(Fig. C)

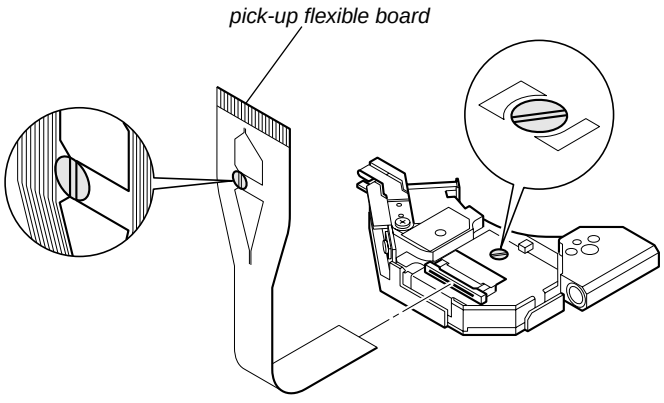
OPTICAL PICK-UP KSS-540A



Note: Before disconnecting the pick-up flexible board from the optical pick-up KSS-540A, short the laser diode shorting lands on the bottom of the optical pick-up KSS-540A. Refer to Fig. D.

INSTALLING A OPTICAL PICK-UP KSS-540A

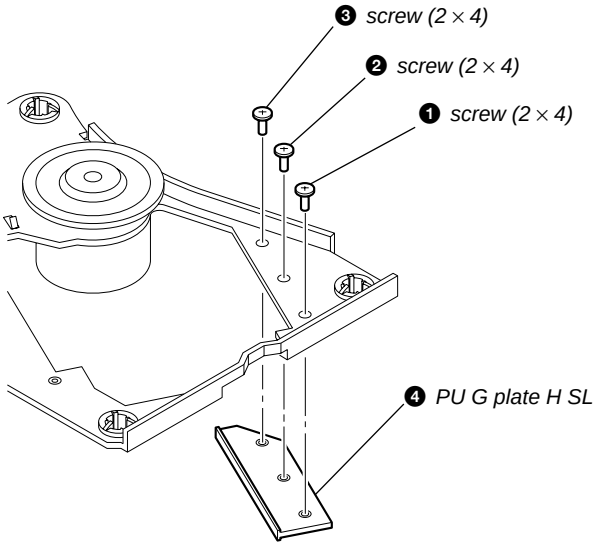
1. *Connect the pick-up flexible board to the optical pick-up KSS-540A.*
2. *Open the laser diode shorting lands on the bottom of the optical pick-up KSS-540A.*
   Note: Use the soldering iron whose metal part is grounded or a ceramic soldering iron.



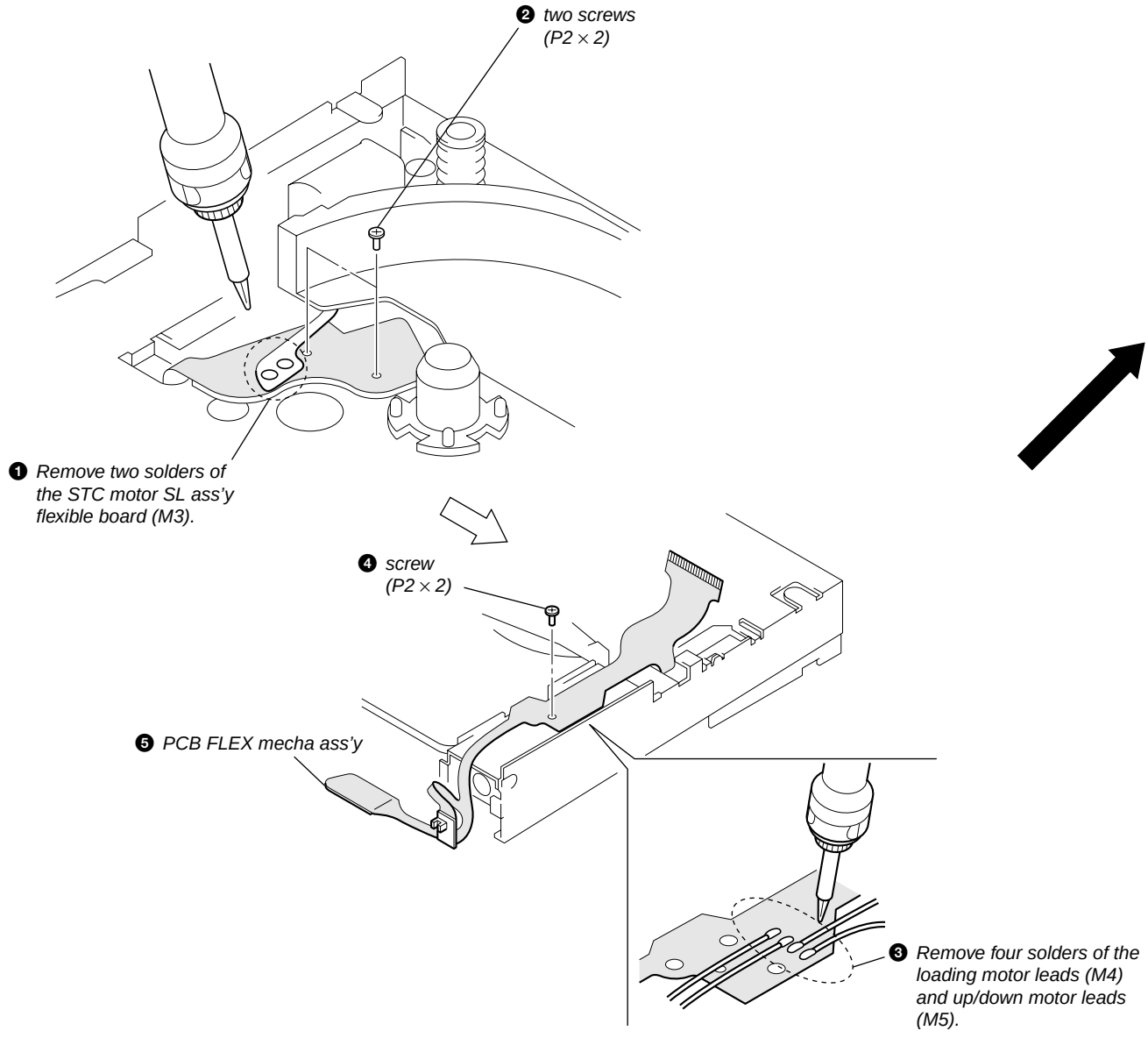
(Fig. D)

PU G PLATE H SL

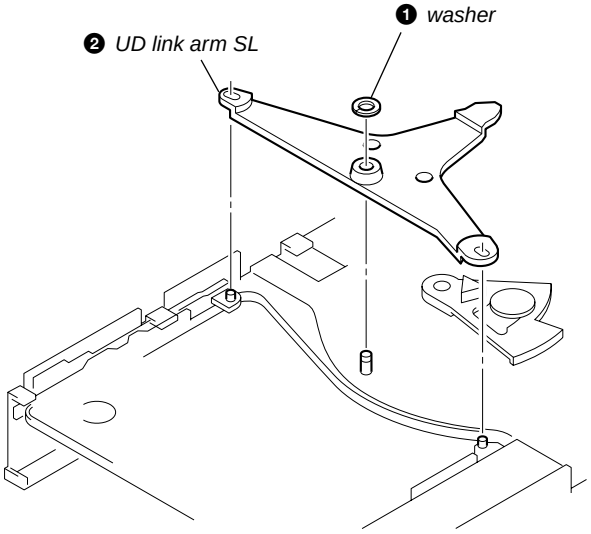
Note: Assemble with tighten screw in the order of ❸ to ❶.



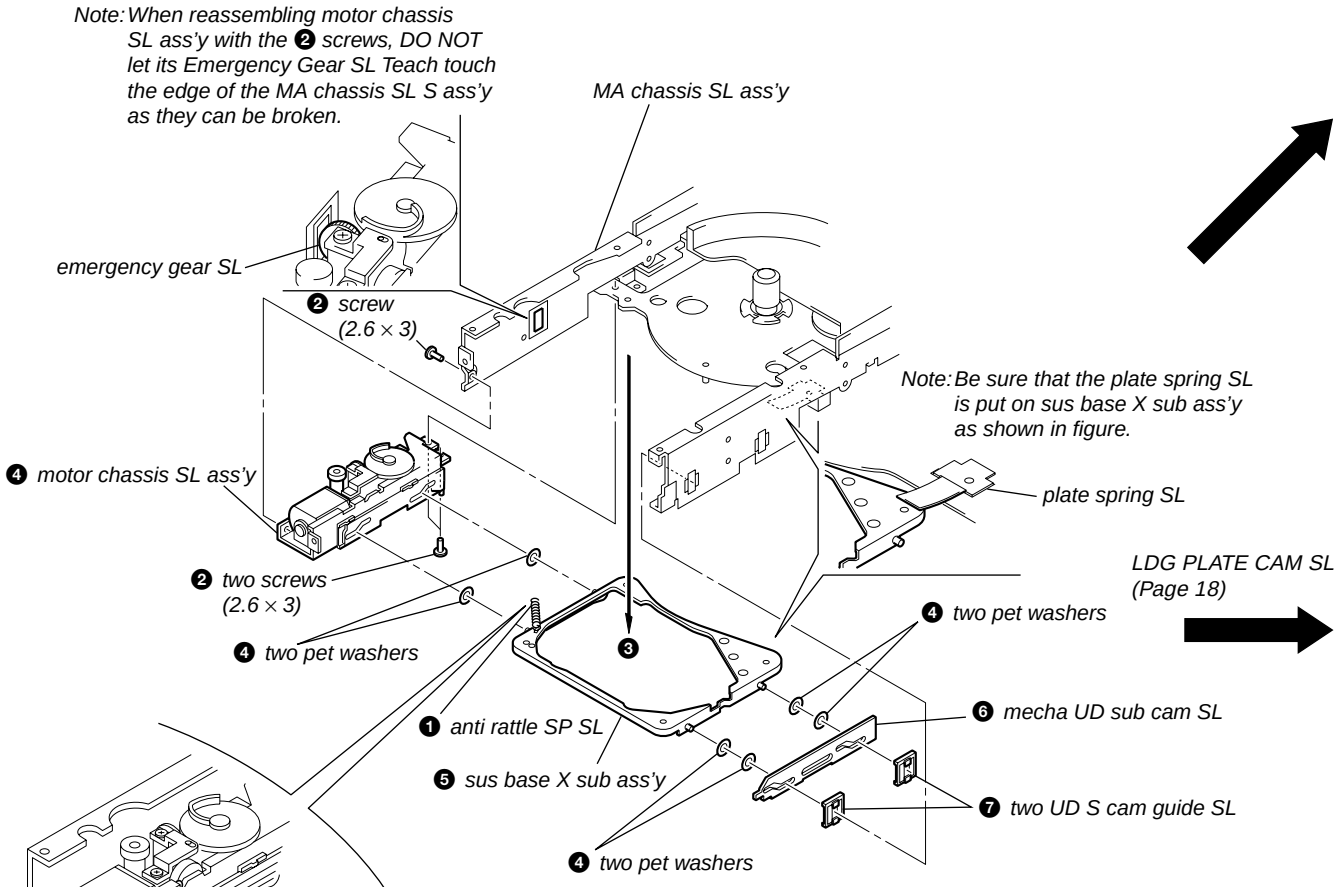
PCB FLEX MECHA ASS'Y

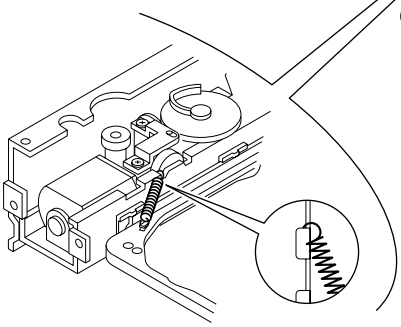

❷ two screws (P2 × 2)
❶ Remove two solders of the STC motor SL ass'y flexible board (M3).
❹ screw (P2 × 2)
❺ PCB FLEX mecha ass'y
❸ Remove four solders of the loading motor leads (M4) and up/down motor leads (M5).

UD LINK ARM SL



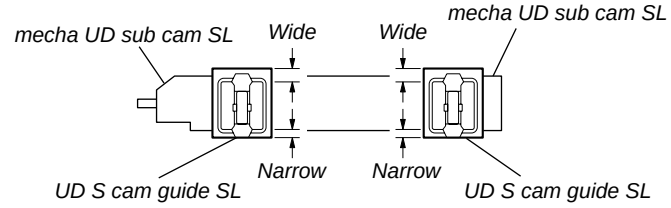
MOTOR CHASSIS SL ASS'Y


Note: When reassembling motor chassis SL ass'y with the ❷ screws, DO NOT let its Emergency Gear SL Teach touch the edge of the MA chassis SL S ass'y as they can be broken.
MA chassis SL ass'y
emergency gear SL
❷ screw (2.6 × 3)
Note: Be sure that the plate spring SL is put on sus base X sub ass'y as shown in figure.
❹ motor chassis SL ass'y
plate spring SL
LDG PLATE CAM SL (Page 18)
❷ two screws (2.6 × 3)
❹ two pet washers
❹ two pet washers
❸
❶ anti rattle SP SL
❺ sus base X sub ass'y
❻ mecha UD sub cam SL
❼ two UD S cam guide SL
❹ two pet washers



Note: Hook anti rattle SP SL on motor chassis SL ass'y as shown in figure.

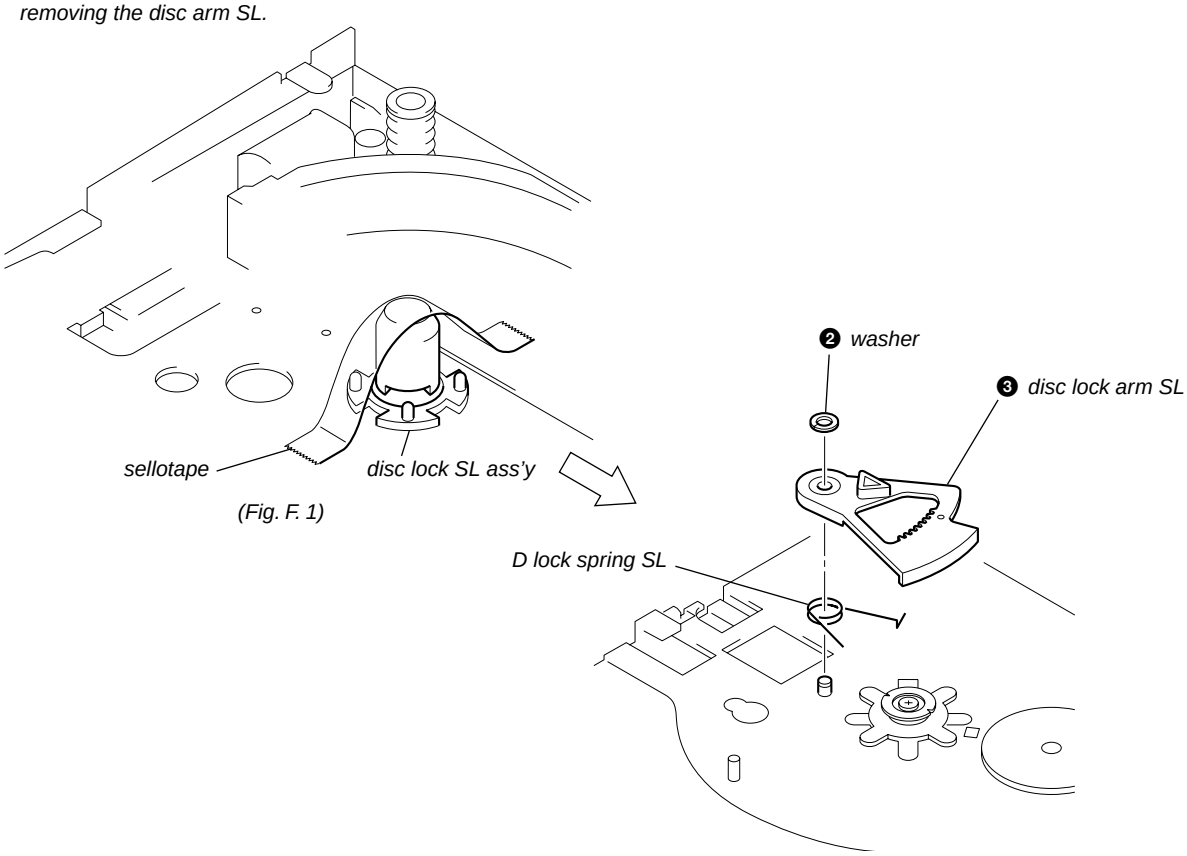
Note: Reassemble UD S cam guide SL so that their wider sides come upper as shwon in Fig. E.



(fig. E)

DISC LOCK ARM SL

❶ *Apply sellotape to the disc lock SL ass'y as shown in figure to prevent the disc lock from falling off while removing the disc arm SL.*

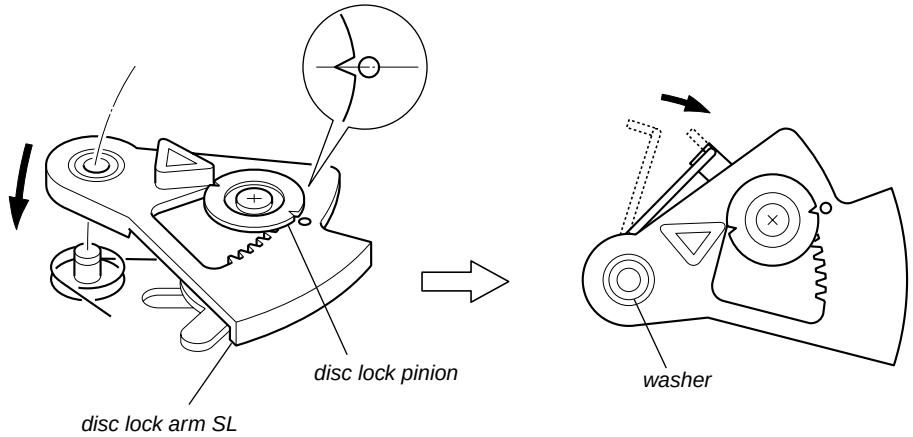


(Fig. F. 1)

INSTALLING THE DISC LOCK ARM SL

POSITIONING OF THE DISC LOCK ARM SL IS REQUIRED. (Refer to Fig. F. 2)

(1) Place the disc lock spring SL as shown in the figure.
(2) Insert the disc lock pinion into the hole on the disc lock arm SL.
(3) Adjust the position of the disc lock arm SL until its mark meets the V-cut of the disc lock pinion as shown in the figure.
(4) Insert the shaft hole of the disc lock arm SL into the shaft.
(5) Hook the end of the disc lock spring SL on the chassis hole as shown in the figure.
(6) Reassemble the washer in place.
(7) Peel off the sellotape. Refer to Fig. F. 1.



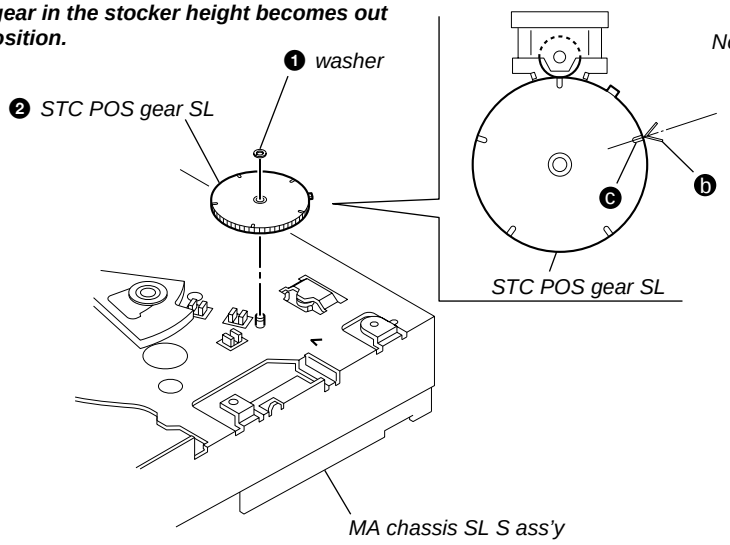
(Fig. F. 2)

STC POS GEAR SL

Note: ***DO NOT remove the STC POS Gear SL together with the STC Motor SL Ass'y (Stocker) (M3), always replace it alone.***

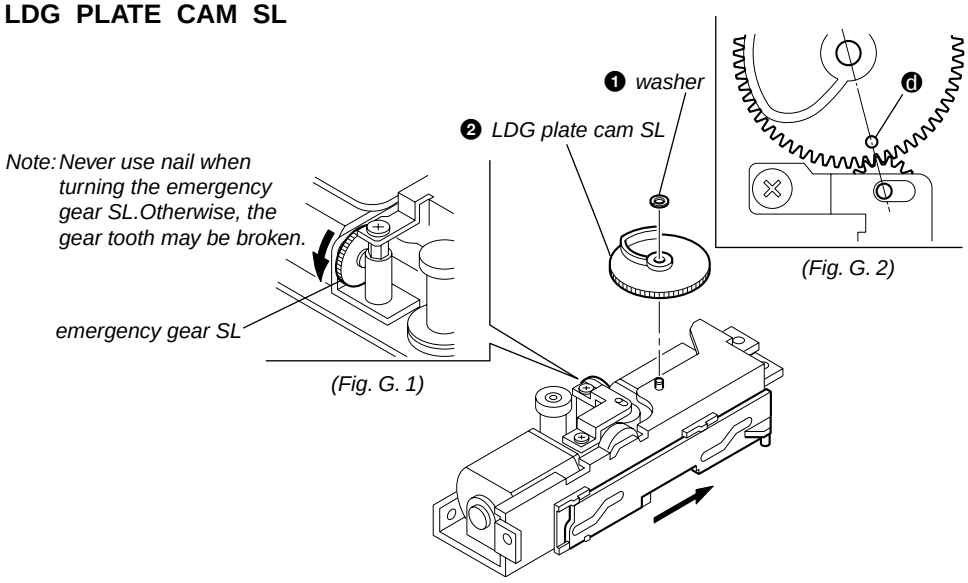
If they are removed at the same time and the gear in the stocker height becomes out of position.

POSITIONING OF THE STC POS GEAR SL REQUIRED



Note: *Assemble the STC POS gear SL so that the mark ⓒ on the STC POS gear SL meets the mark ⓑ on the MA chassis SL S ass'y.*

LDG PLATE CAM SL



Note: *Never use nail when turning the emergency gear SL.Otherwise, the gear tooth may be broken.*

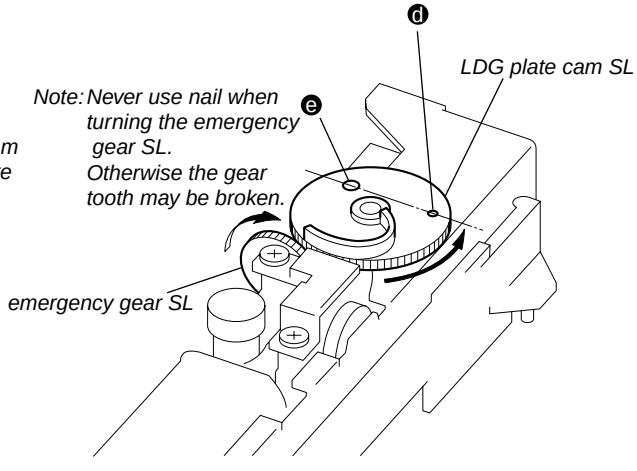
(Fig. G. 1)

(Fig. G. 2)

INSTALLING THE LDG PLATE CAM SL

POSITIONING OF THE LDG PLATE CAM SL IS REQUIRED.

(1) Turn the emergency gear SL in the direction of the arrow as shown in Fig. G. 1 until it stops.
(2) Assemble LDG plate cam SL so that the center of the LDG plate cam SL, mark ⓓ on the LDG plate cam SL and the center of the shaft are aligned on one line as shown in Fig. G. 2.
(3) Turn the emergency gear SL in revers until the marks ⓓ, ⓔ on LDG plate cam SL are almost aligened as shown in Fig. G. 3. (This operation is required to return to the mechanism in standby state.)



Note: *Never use nail when turning the emergency gear SL. Otherwise the gear tooth may be broken.*

(Fig. G. 3)

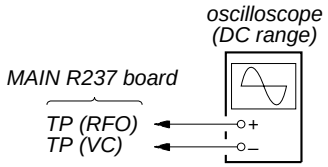
SECTION 4
ELECTRICAL ADJUSTMENT

Forcus Bias Adjustment

Note:

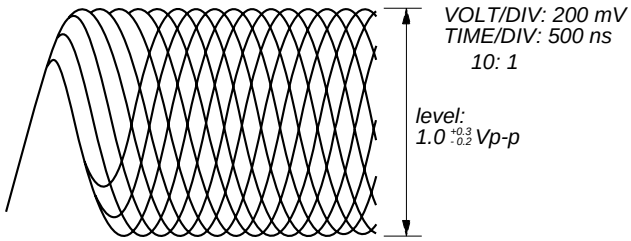
1. CD Block is basically designed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01)
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with lens cleaning liquid when the signal level is low than specified value with the following adjustment.
5. Adjust the focus bias adjustment when optical block is replaced.

Focus Bias Adjustment



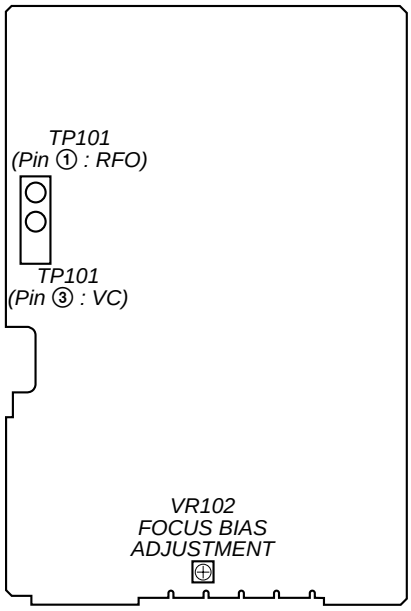
Procedure :

1. Connect oscilloscope to TP101(pin ①: RFO) and TP101 (pin ③: VC) on MAIN R237 board.
2. Press the I/⏻ button to turn the power on.
3. Put test disc (YEDS-18) in and press the ▶II button to playback.
4. Adjust VR102 so that oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
5. After adjustment, check the RF signal level.



Adjustment Location:

– MAIN R237 BOARD (Conductor Side) –



MEMO

SECTION 5
DIAGRAMS

5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

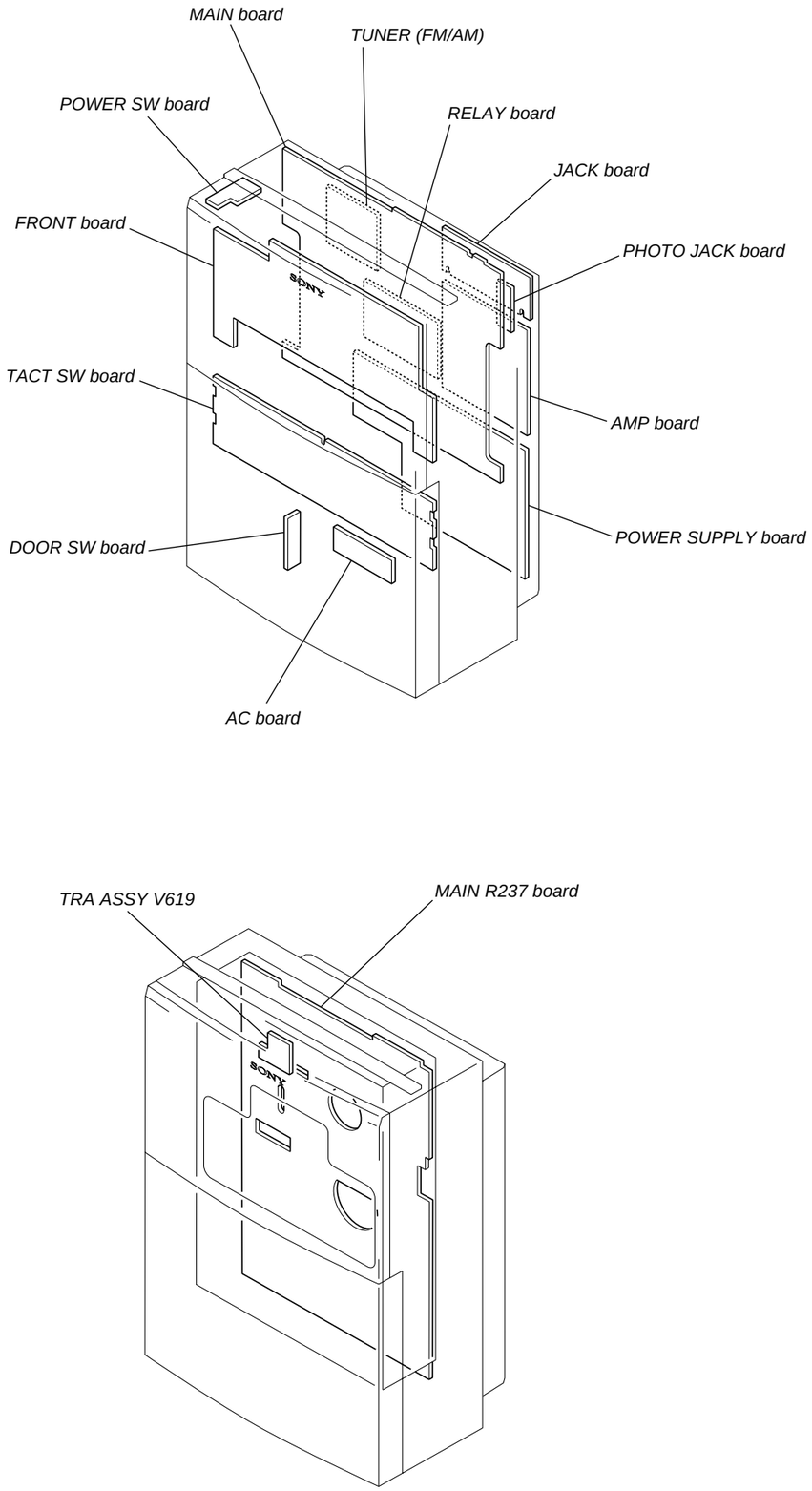
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

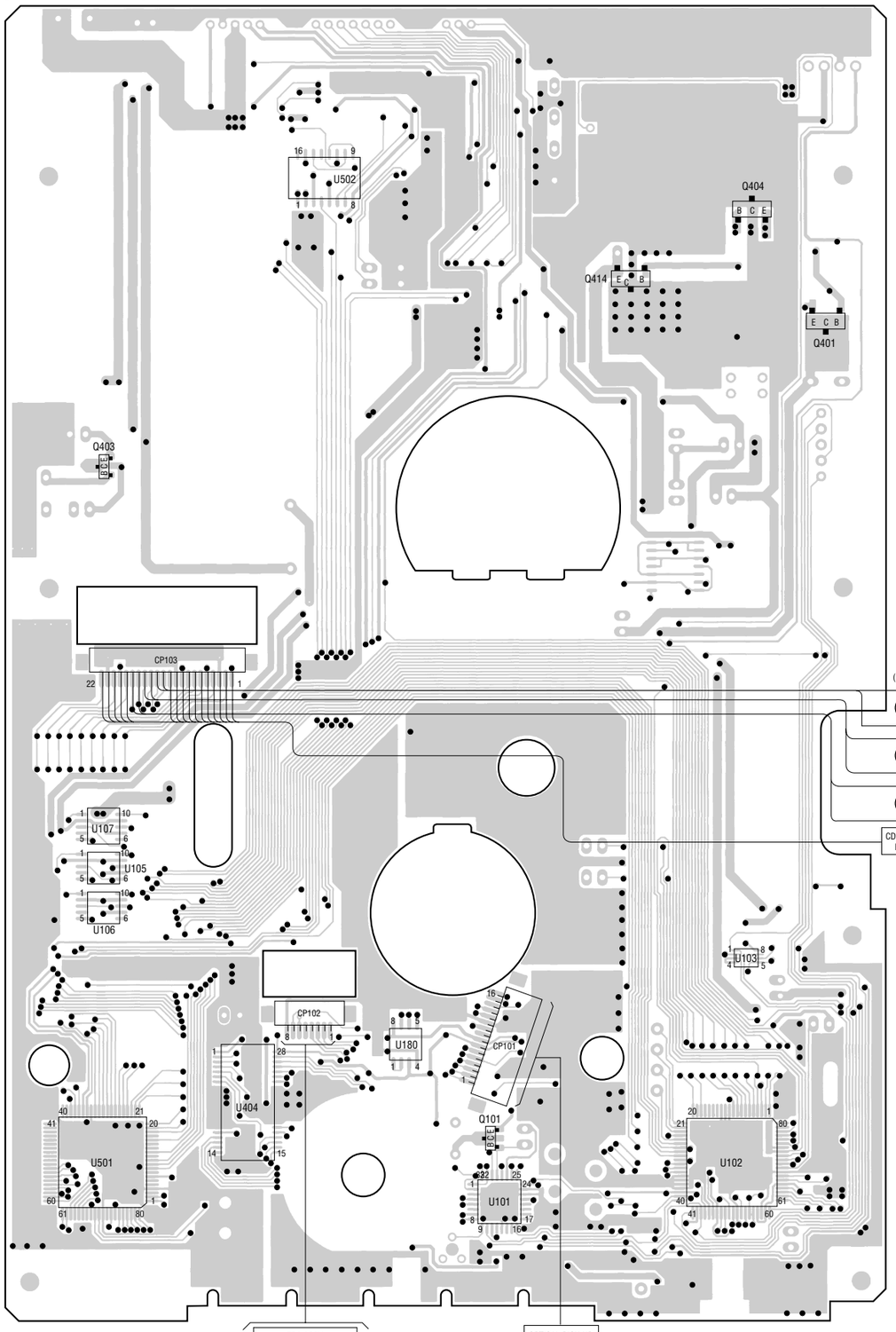
- B+ : B+ Line.
- B– : B– Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : TUNER (FM/AM)
  - : CD PLAY
  - : TAPE

• Circuit Boards Location

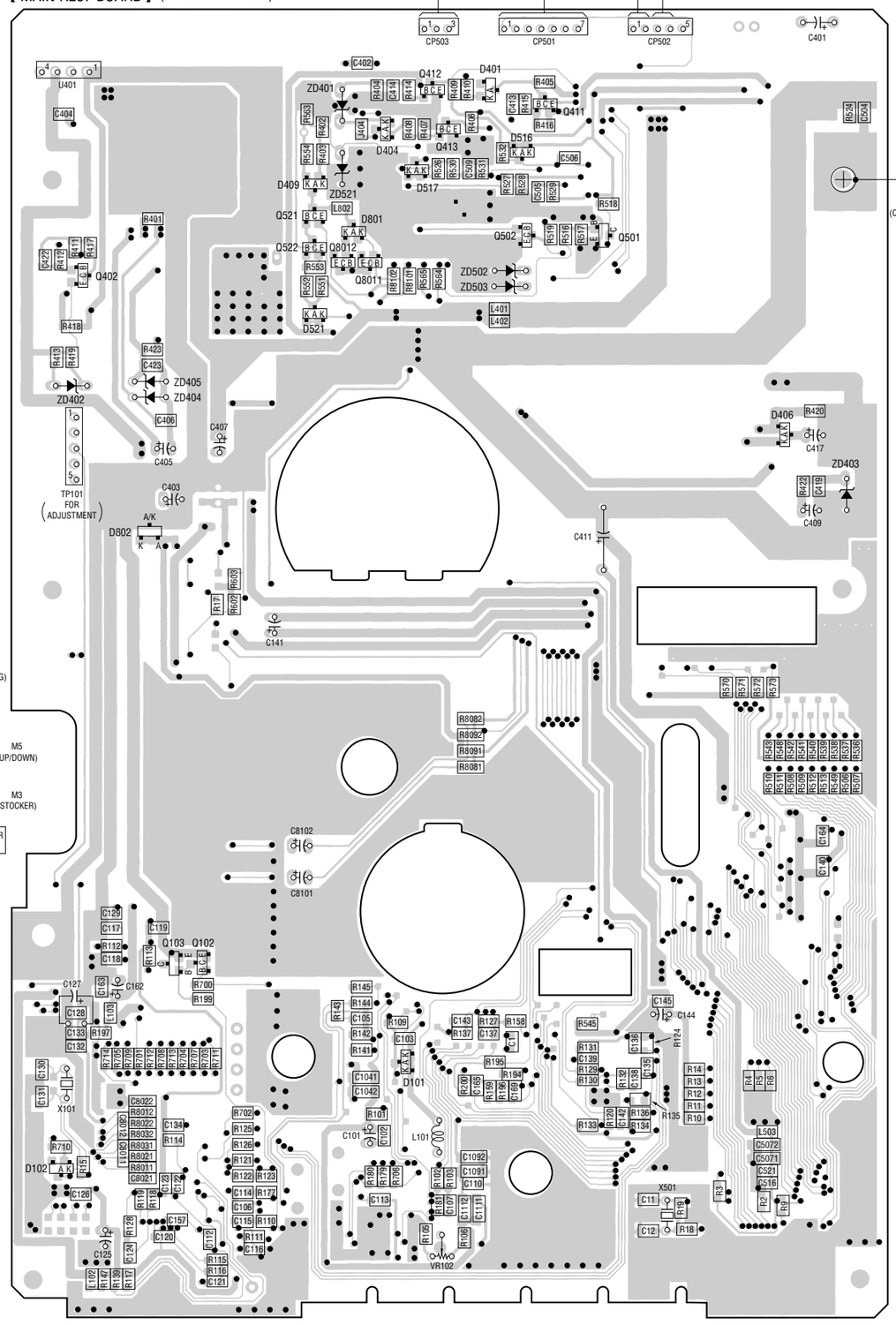


5-2. PRINTED WIRING BOARD – CD Section – • See page 21 for Circuit Boards Location.

【 MAIN R237 BOARD 】(COMPONENT SIDE)



【 MAIN R237 BOARD 】(CONDUCTOR SIDE)

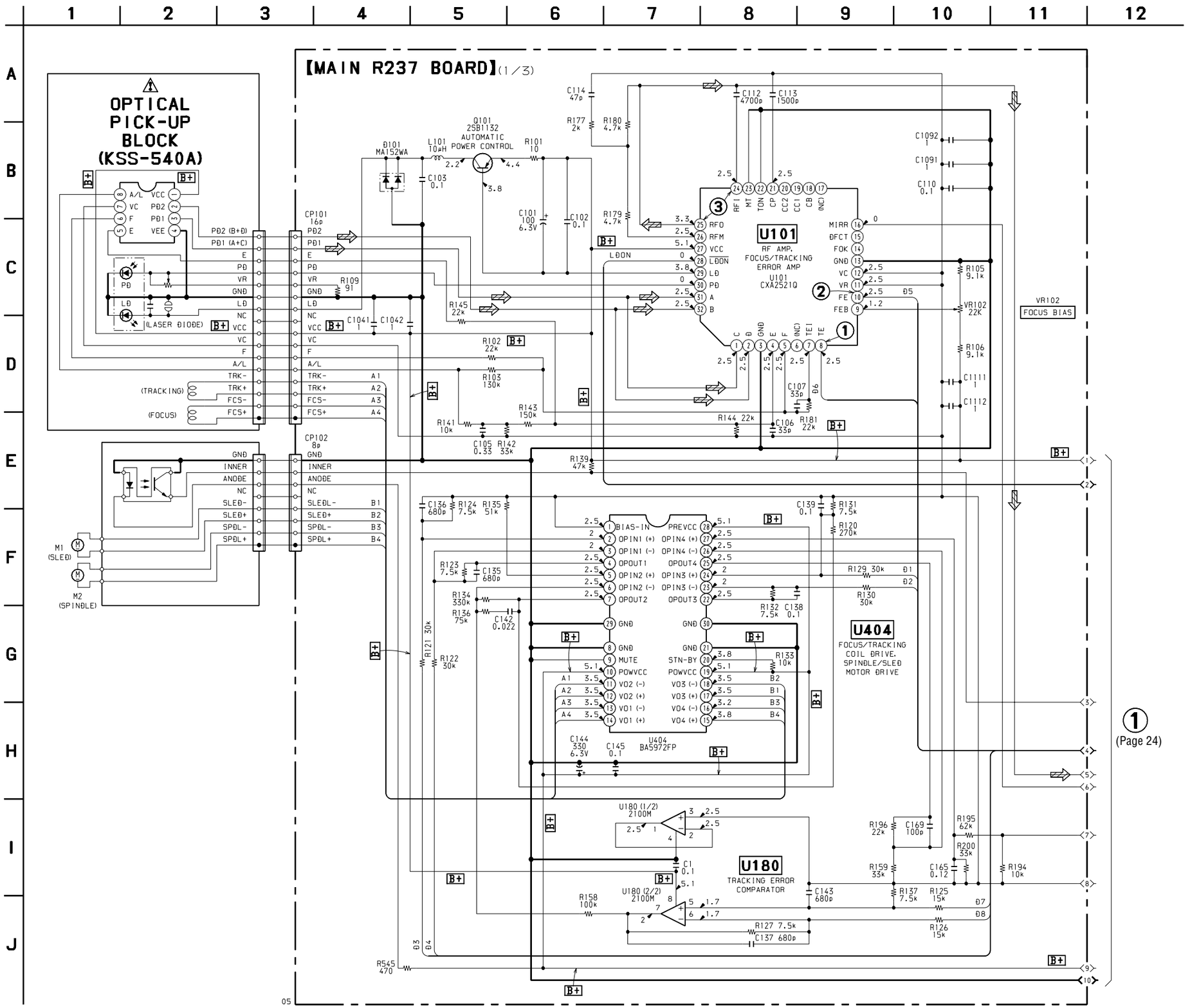


5-3. SCHEMATIC DIAGRAM – CD Section (1/3) –

• See page 33 for Waveforms.

• **Semiconductor Location**

Ref. No.	Location
D101	J-12
D102	K-9
D401	B-12
D404	B-11
D406	E-15
D409	C-11
D516	B-13
D517	B-12
D521	D-11
D801	C-11
Q101	J-5
Q102	I-10
Q103	I-10
Q401	D-7
Q402	C-9
Q403	E-2
Q404	C-7
Q411	B-13
Q412	B-12
Q413	B-12
Q414	C-6
Q501	C-13
Q502	C-13
Q521	C-11
Q522	C-11
Q8011	C-11
Q8012	C-11
U101	K-5
U102	J-7
U103	I-7
U105	H-2
U106	H-2
U107	H-2
U180	J-4
U401	B-9
U404	J-3
U501	J-2
U502	C-3
ZD401	B-11
ZD402	D-9
ZD403	E-15
ZD404	D-10
ZD405	D-10
ZD502	C-12
ZD503	C-12
ZD521	B-11



Note:
• In the printed wiring diagram of the MAIN R237 Board, “A and L” or “B and R” of the last code of Ref No. on the silk-screen printing drawing of the main unit are replace with “1” or “2” respectively.

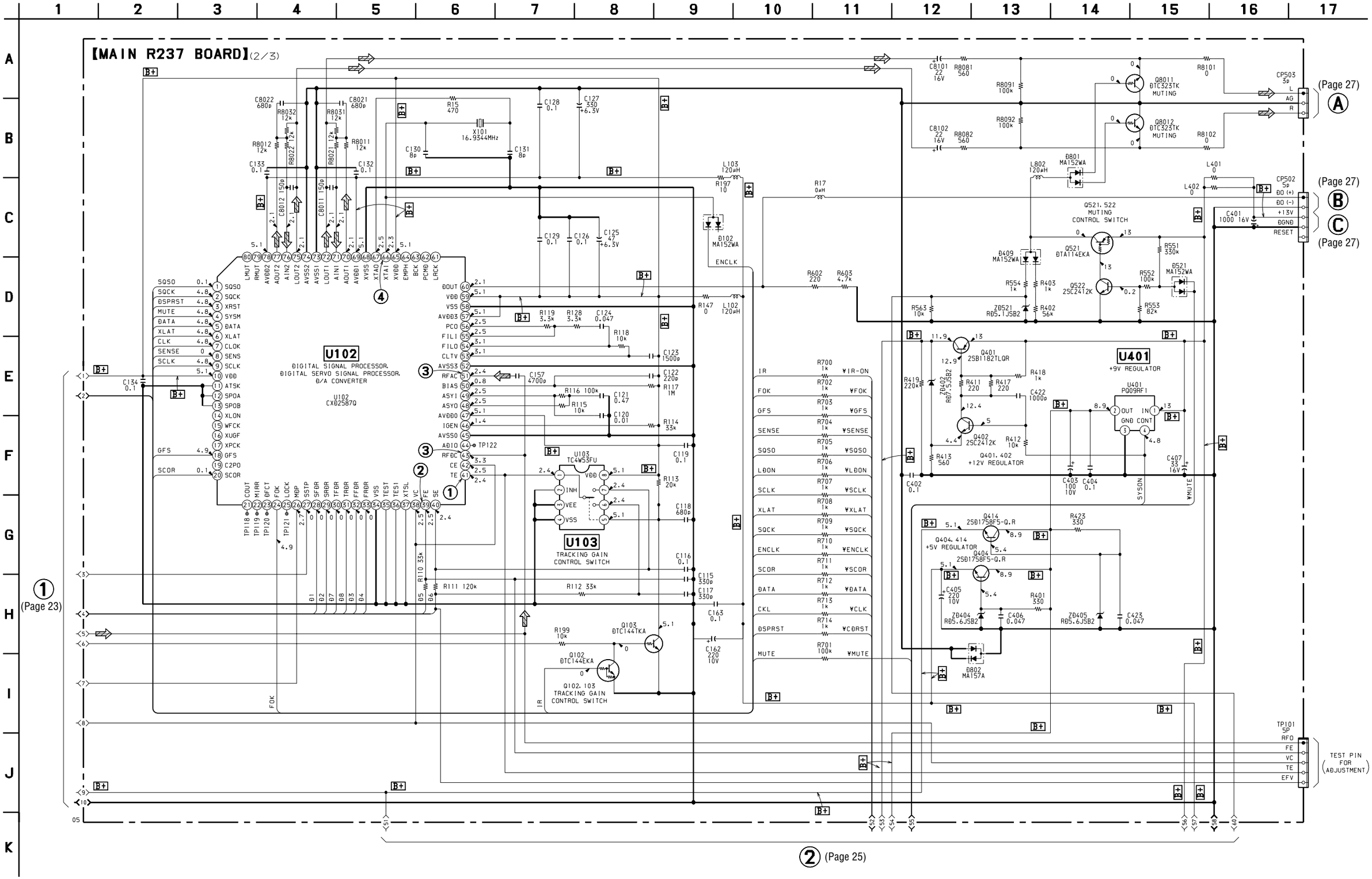
Example: C104A → C1041
R801R → R8012

• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

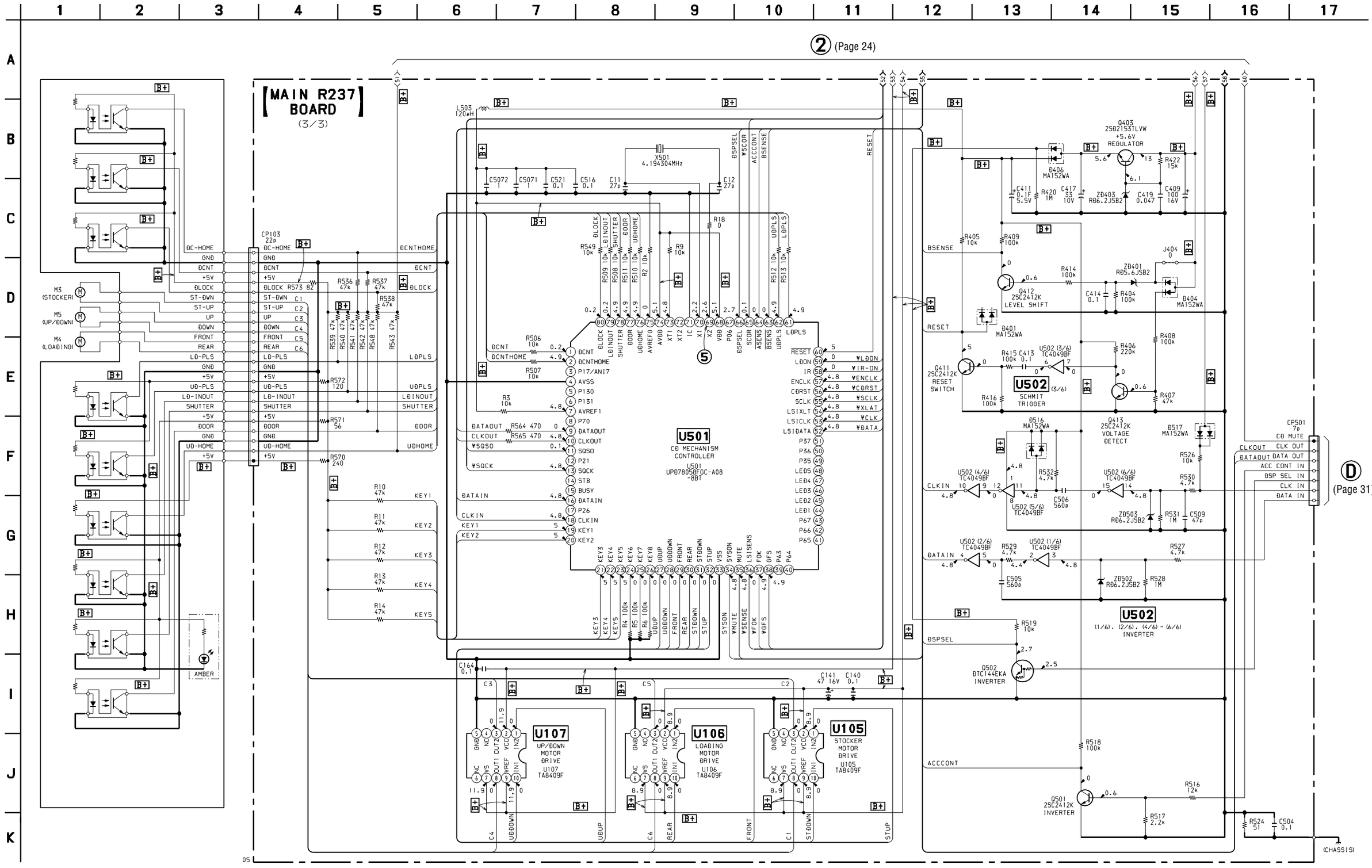
5-4. SCHEMATIC DIAGRAM – CD Section (2/3) –

• See page 33 for Waveforms. • See page 36 for IC Block Diagram.



• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

5-5. SCHEMATIC DIAGRAM – CD Section (3/3) – • See page 33 for Waveform.

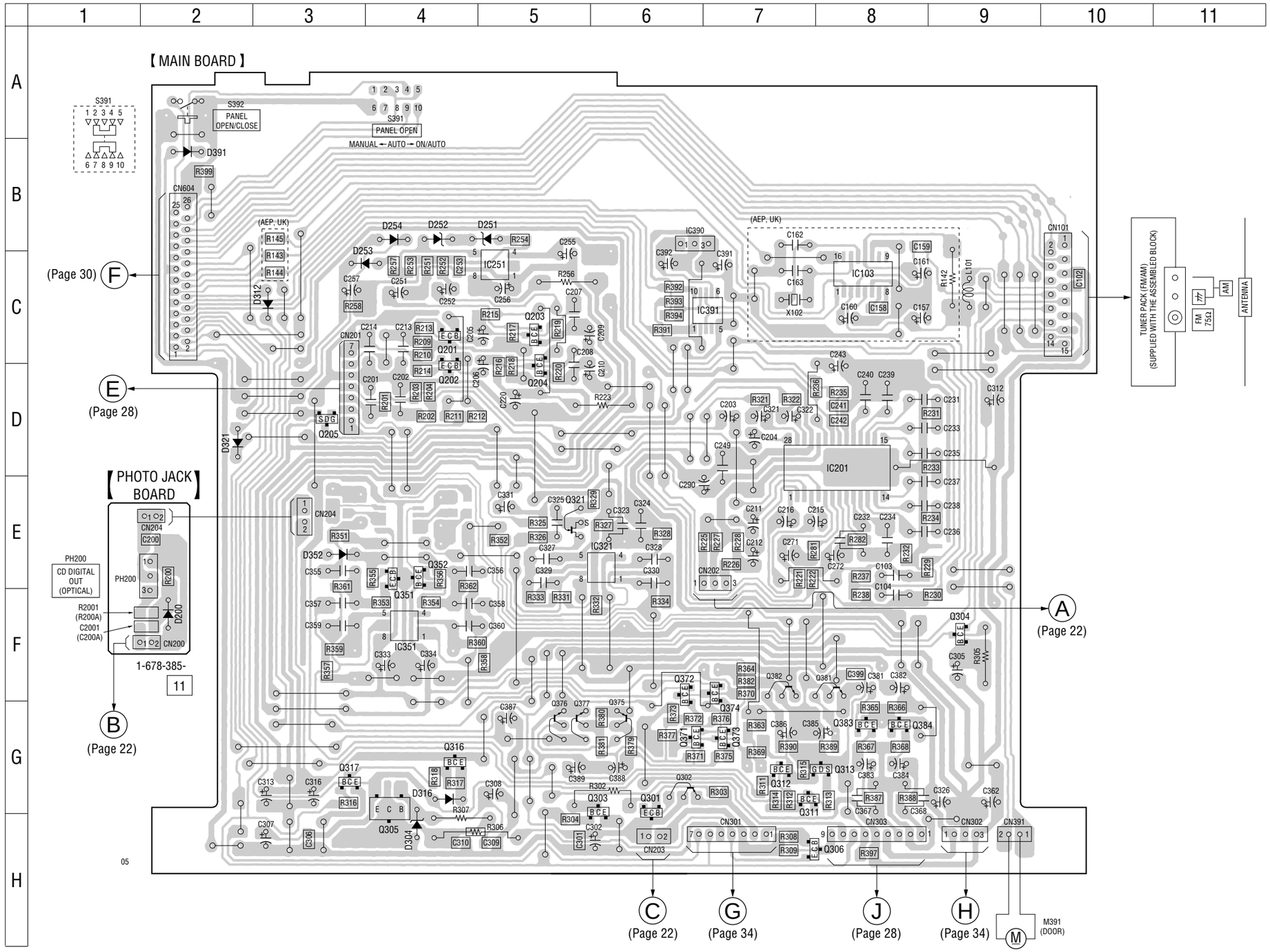


• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

5-6. PRINTED WIRING BOARDS – MAIN Section – • See page 21 for Circuit Boards Location.

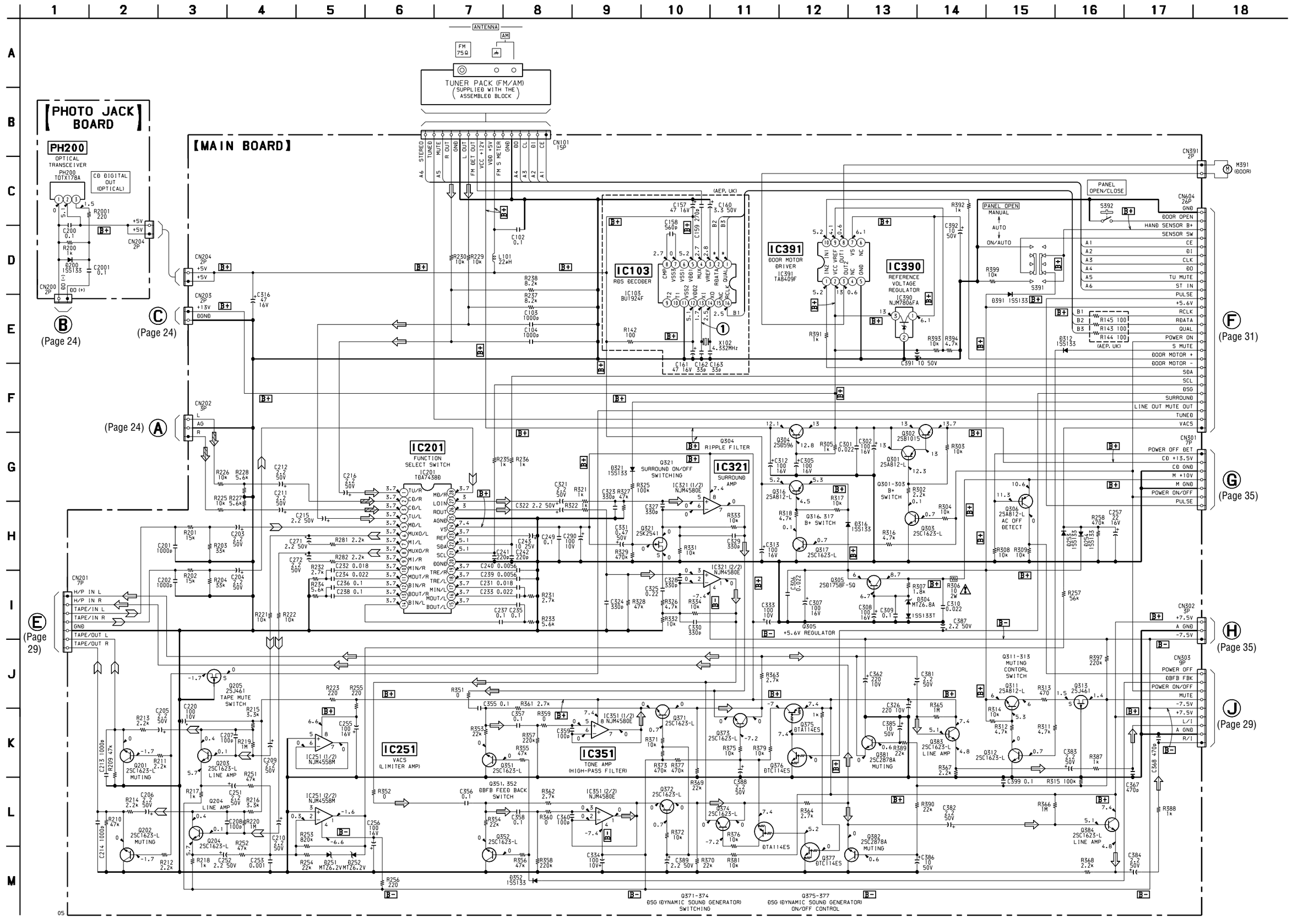
• **Semiconductor Location**

Ref. No.	Location
D200	F-2
D251	B-5
D252	B-4
D253	C-3
D254	B-4
D304	H-4
D312	C-3
D316	G-4
D321	D-2
D352	E-3
D391	B-2
IC103	C-8
IC201	D-8
IC251	C-5
IC321	E-6
IC351	F-4
IC390	B-6
IC391	C-7
PH200	E-2
Q201	C-4
Q202	D-4
Q203	C-5
Q204	D-5
Q205	D-3
Q301	G-6
Q302	G-6
Q303	G-6
Q304	F-9
Q305	G-4
Q306	H-8
Q311	G-7
Q312	G-7
Q313	G-8
Q316	G-4
Q317	G-3
Q321	E-5
Q351	E-4
Q352	E-4
Q371	G-6
Q372	F-6
Q373	G-7
Q374	F-7
Q375	G-6
Q376	G-5
Q377	G-5
Q381	F-8
Q382	F-7
Q383	G-8
Q384	G-8



5-7. SCHEMATIC DIAGRAM – MAIN Section –

• See page 33 for Waveform. • See page 36 for IC Block Diagram.



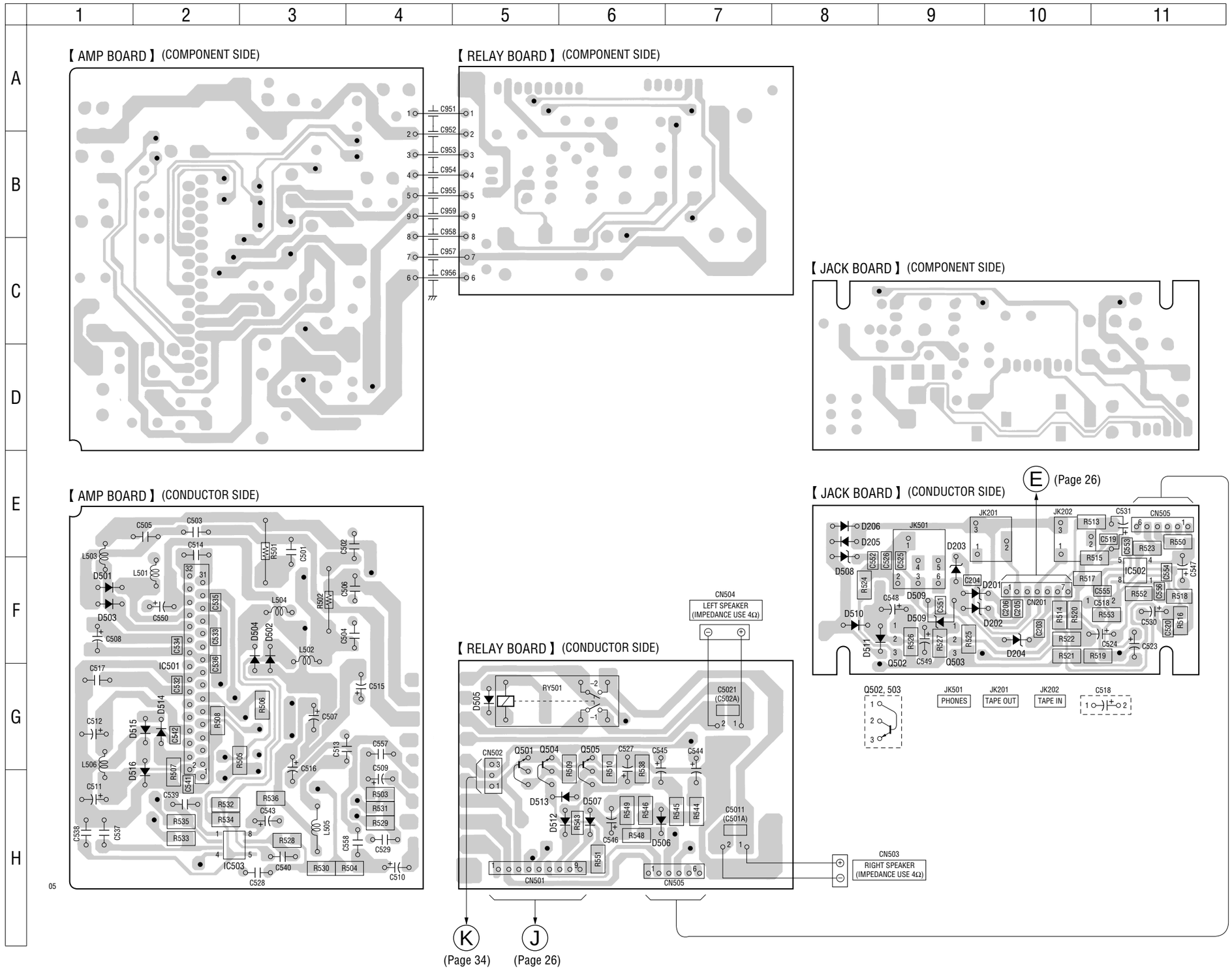
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)
  ∗ : Impossible to measure

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

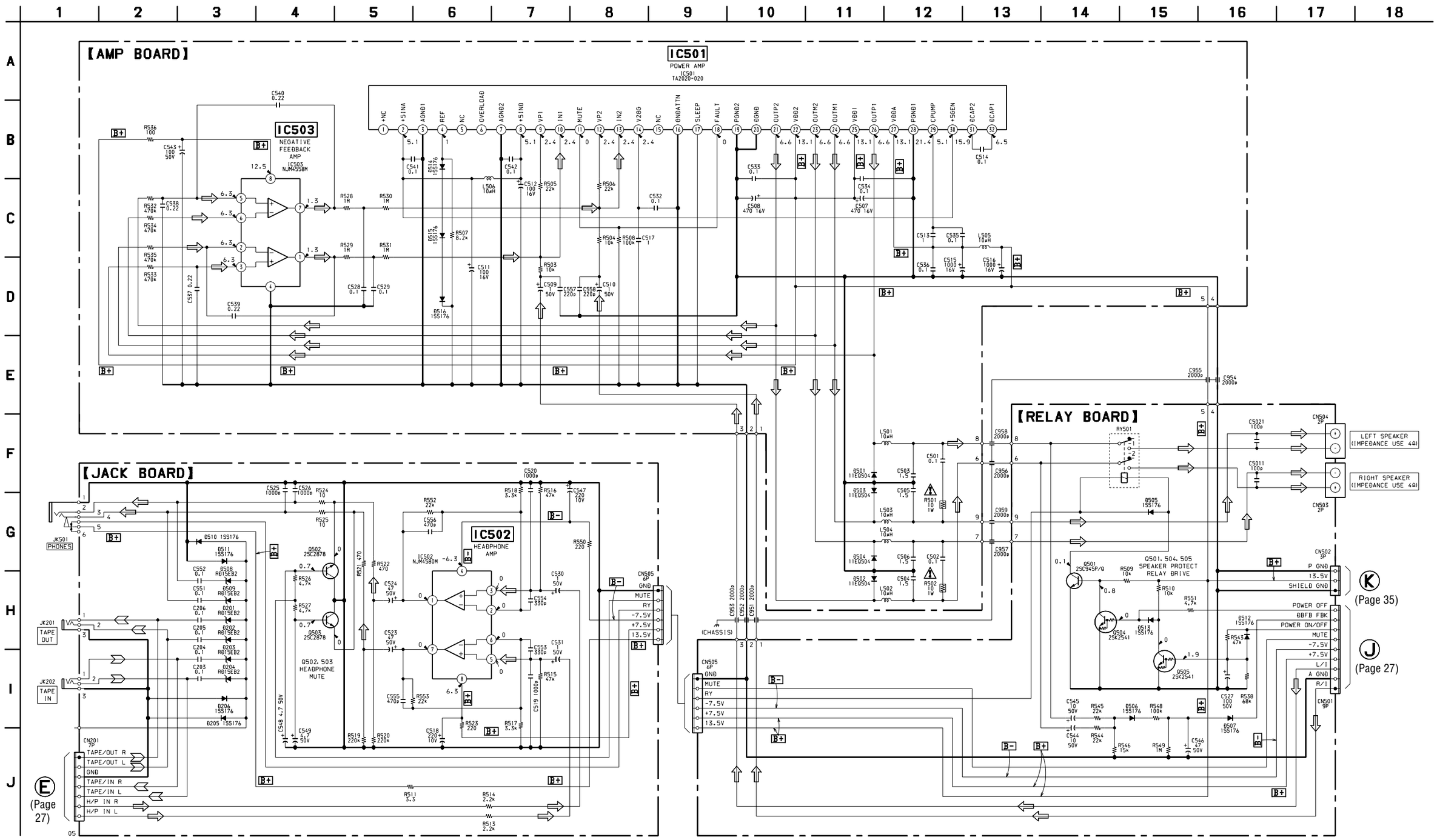
5-8. PRINTED WIRING BOARDS – AMP/RELAY/JACK Board – • See page 21 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D201	F-9
D202	F-9
D203	F-9
D204	F-10
D205	E-8
D206	E-8
D501	F-1
D502	F-3
D503	F-1
D504	F-3
D505	G-5
D506	H-6
D507	H-6
D508	F-8
D509	F-9
D510	F-8
D511	F-9
D512	H-6
D513	H-6
D514	G-2
D515	G-2
D516	G-2
IC501	G-2
IC502	F-11
IC503	H-2
Q501	G-5
Q502	F-9
Q503	F-9
Q504	G-5
Q505	G-6


1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H
【 AMP BOARD 】(COMPONENT SIDE)
【 RELAY BOARD 】(COMPONENT SIDE)
【 JACK BOARD 】(COMPONENT SIDE)
C951 C952 C953 C954 C955 C959 C958 C957 C956
【 AMP BOARD 】(CONDUCTOR SIDE)
【 RELAY BOARD 】(CONDUCTOR SIDE)
【 JACK BOARD 】(CONDUCTOR SIDE)
CN504 LEFT SPEAKER (IMPEDANCE USE 4Ω)
CN503 RIGHT SPEAKER (IMPEDANCE USE 4Ω)
RY501
C5021 (C502A)
C5011 (C501A)
Q502, 503
JK501 PHONES
JK201 TAPE OUT
JK202 TAPE IN
C518
E (Page 26)
K (Page 34)
J (Page 26)
05

5-9. SCHEMATIC DIAGRAM – AMP/RELAY/JACK Board –



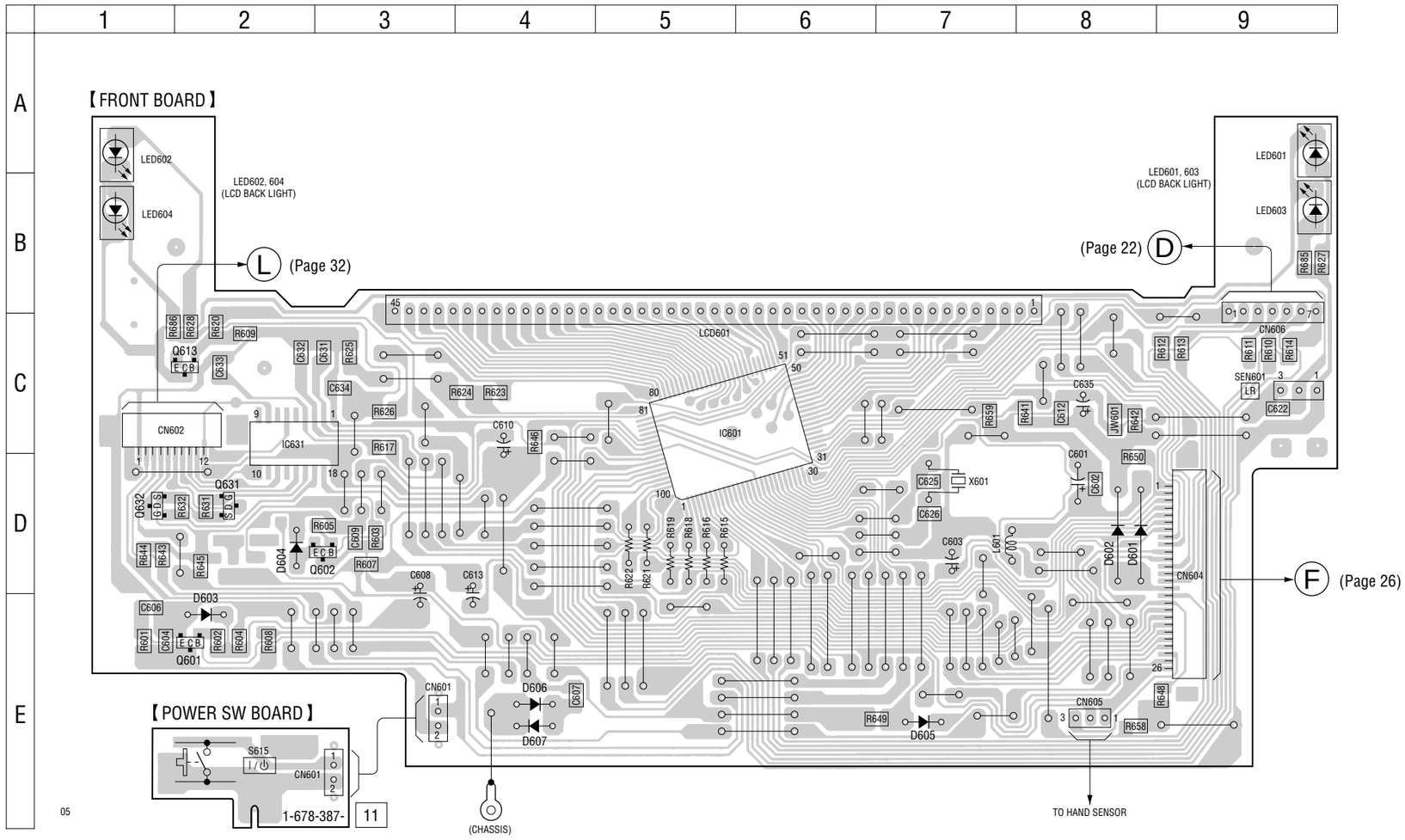
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-10. PRINTED WIRING BOARDS – PANEL Section (1/2) – • See page 21 for Circuit Boards Location.

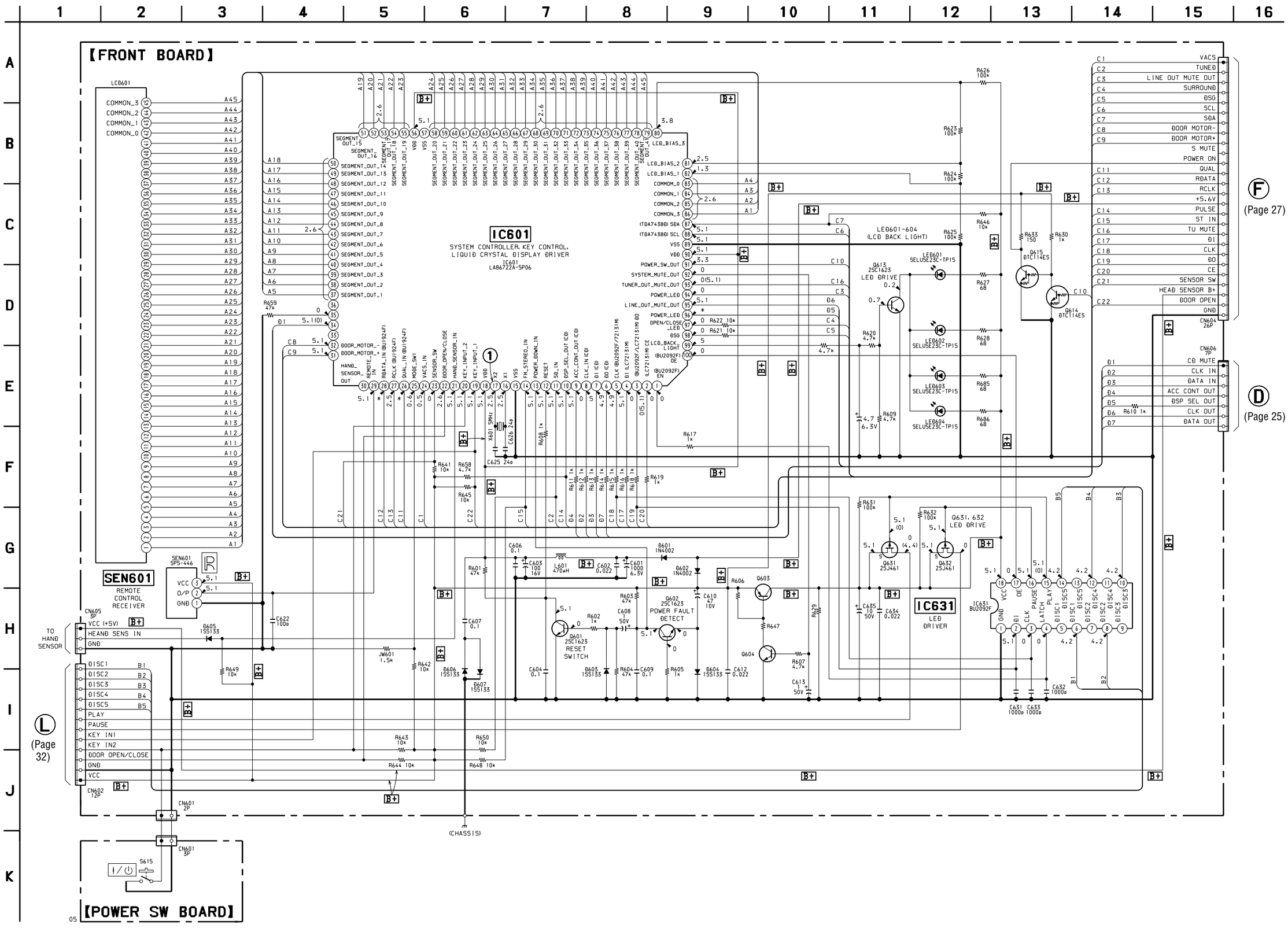
- **Semiconductor Location**

Ref. No.	Location
D601	D-8
D602	D-8
D603	E-2
D604	D-2
D605	E-7
D606	E-4
D607	E-4
IC601	C-5
IC631	C-2
LED601	A-9
LED602	A-1
LED603	B-9
LED604	B-1
Q601	E-2
Q602	D-3
Q613	C-2
Q631	D-2
Q632	D-1
SEN601	C-9



5-11. SCHEMATIC DIAGRAM – PANEL Section (1/2) –

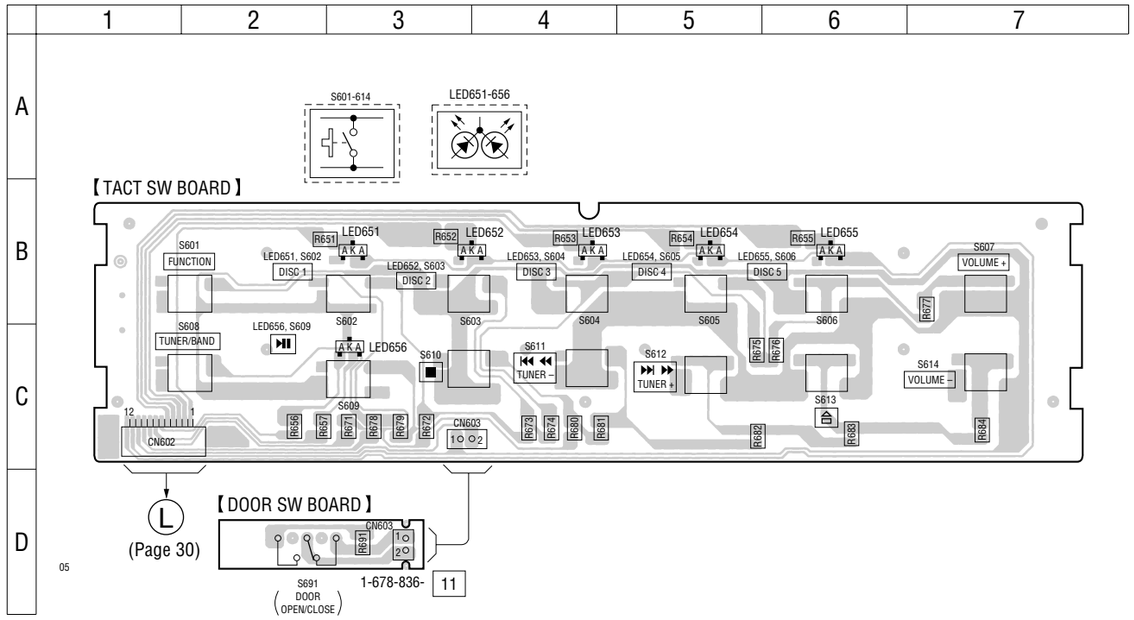
• See page 33 for Waveform. • See page 36 for IC Block Diagram.



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)
  ( ) : CD PLAY
  ∗ : Impossible to measure

5-12. PRINTED WIRING BOARDS – PANEL Section (2/2) –

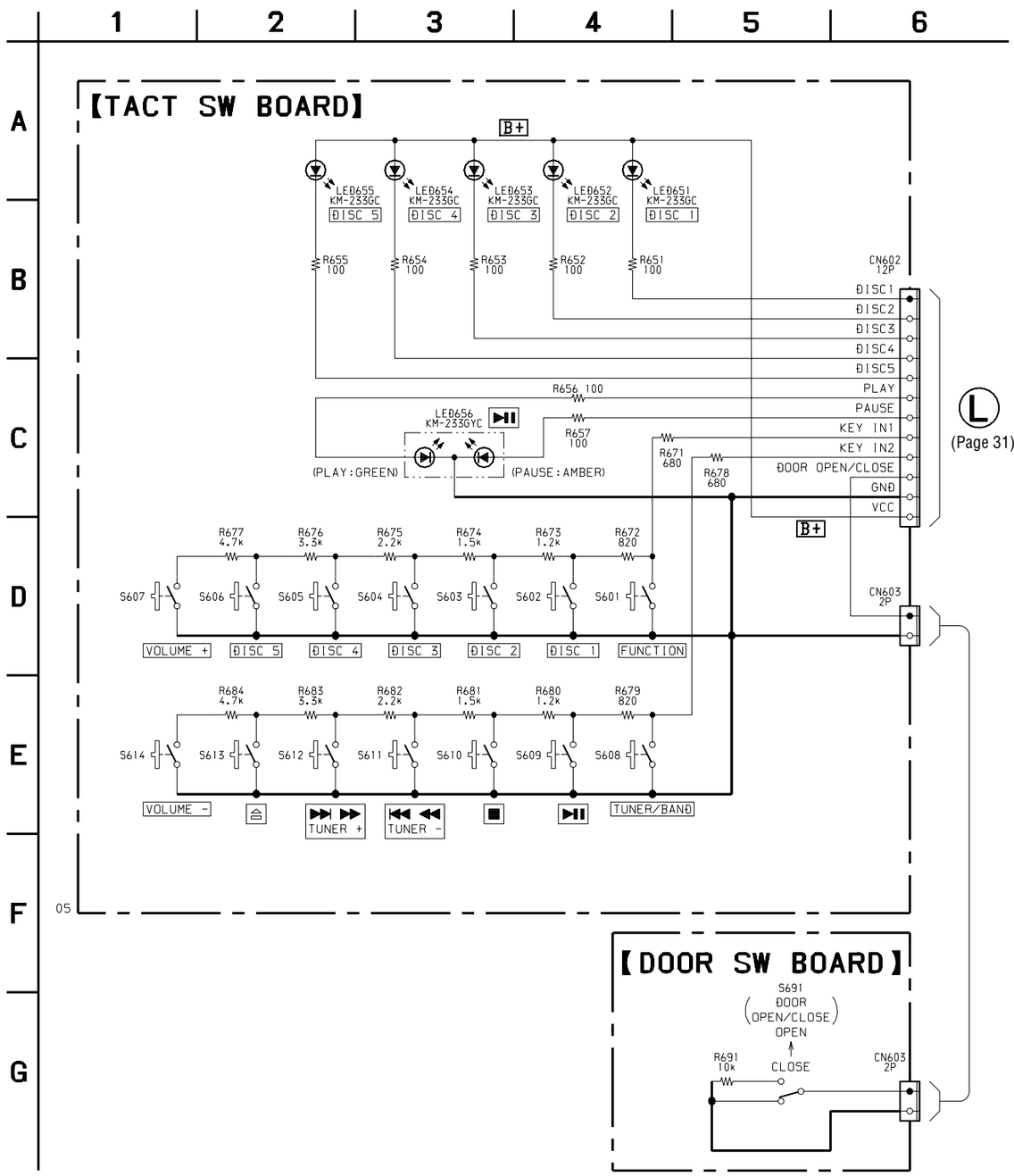
• See page 21 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
LED651	B-3
LED652	B-4
LED653	B-4
LED654	B-5
LED655	B-6
LED656	C-3

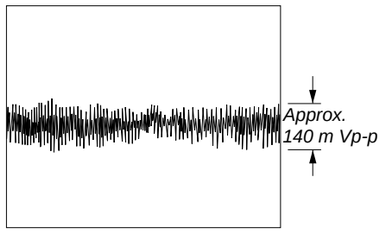
5-13. SCHEMATIC DIAGRAM – PANEL Section (2/2) –



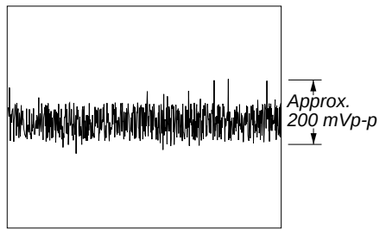
• **Waveforms**

– MAIN R237 Board –

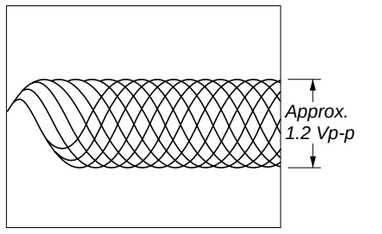
❶ U101 ⑧ (TE), U102 ㊶ (TE)
(CD Play Mode)



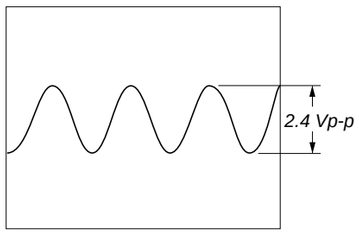
❷ U101 ⑩ (FE), U102 ㊴ (FE)
(CD Play Mode)



❸ U101 ㉔ (RFI), ㉕ (RFO)
U102 ㊸ (RFDC), ㊶ (RFAC)
(CD Play Mode)

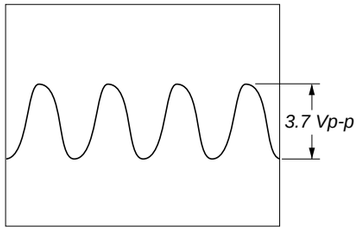


❹ U102 ㊻ (XTAI)



16.9344 MHz

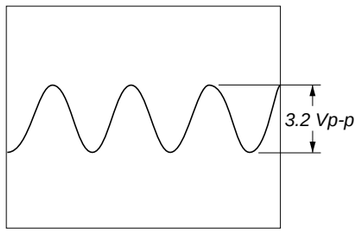
❺ U501 ㊾ (X2)



4.194304 MHz

– MAIN Board –

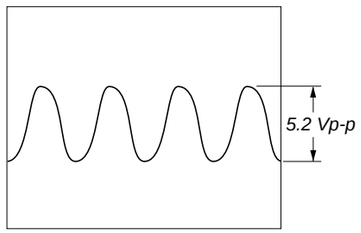
❶ IC103 ⑬ (XI)



4.332 MHz

– FRONT Board –

❶ IC601 ⑰ (X2)



5 MHz

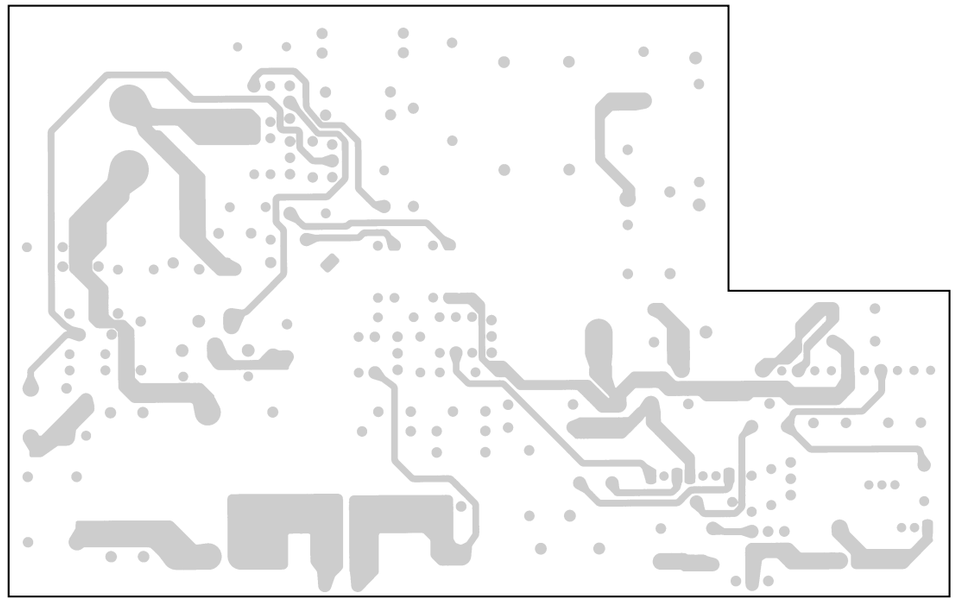
5-14. PRINTED WIRING BOARDS – POWER SUPPLY Section –

• See page 21 for Circuit Boards Location.

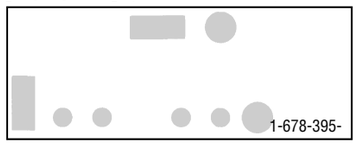
• **Semiconductor Location**

Ref. No.	Location
D1	H-6
D2	H-6
D3	H-6
D4	H-6
D5	G-5
D6	F-4
D7	F-4
D8	G-4
D9	G-4
D10	E-6
D11	H-6
D12	H-5
D13	F-6
D14	F-6
D15	F-6
D16	F-8
IC1	G-5
IC2	G-6
IC3	G-6
IC4	G-6
IC5	G-9
Q1	H-6
Q2	H-5
Q3	H-5
Q4	G-7
Q5	F-8
Q6	E-8
Q7	F-8

【 POWER SUPPLY BOARD 】(COMPONENT SIDE)

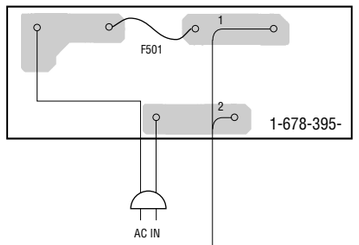


【 AC BOARD 】(COMPONENT SIDE)

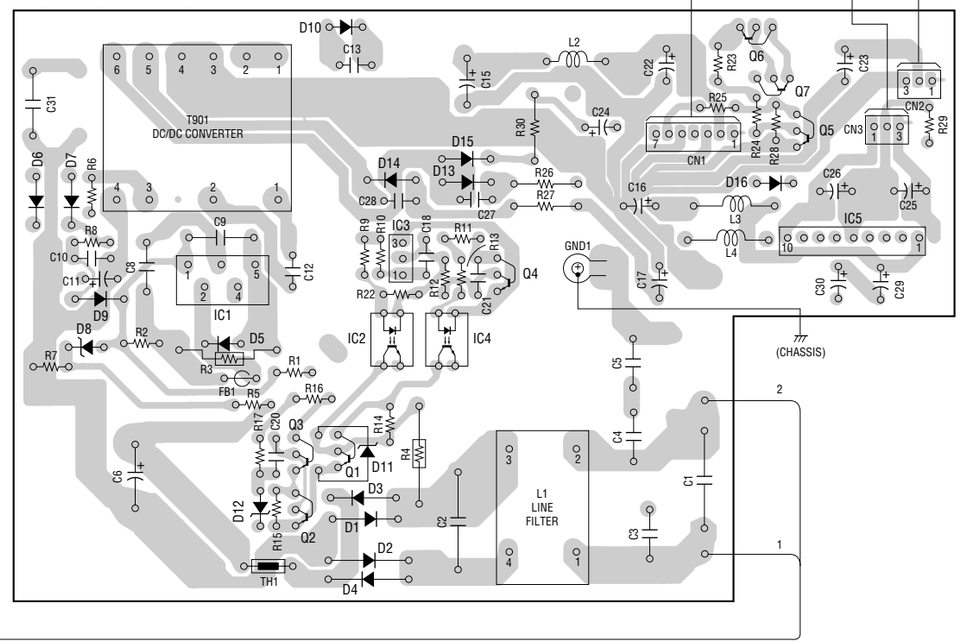


(Page 26) G (Page 26) H K (Page 28)

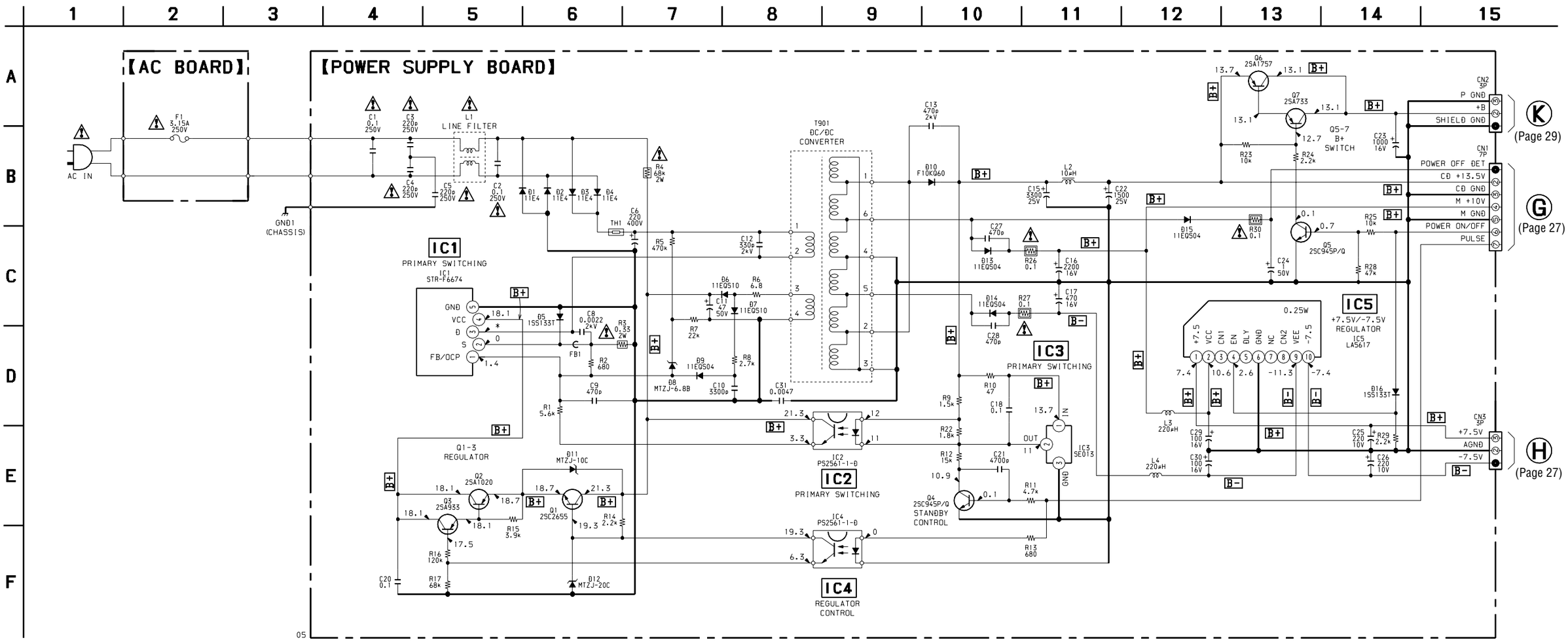
【 AC BOARD 】(CONDUCTOR SIDE)



【 POWER SUPPLY BOARD 】(CONDUCTOR SIDE)



5-15. SCHEMATIC DIAGRAM – POWER SUPPLY Section – • See page 36 for IC Block Diagram.



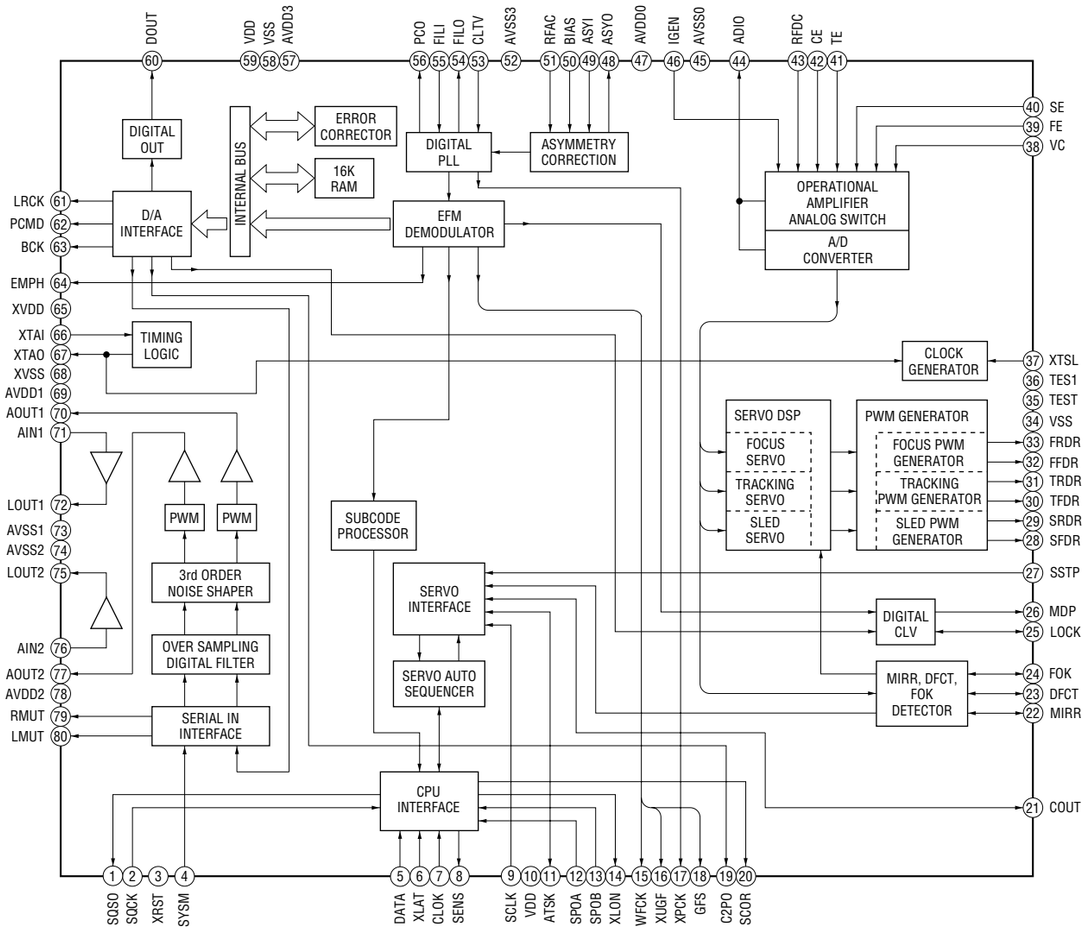
• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)
∗ : Impossible to measure

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• **IC Block Diagrams**

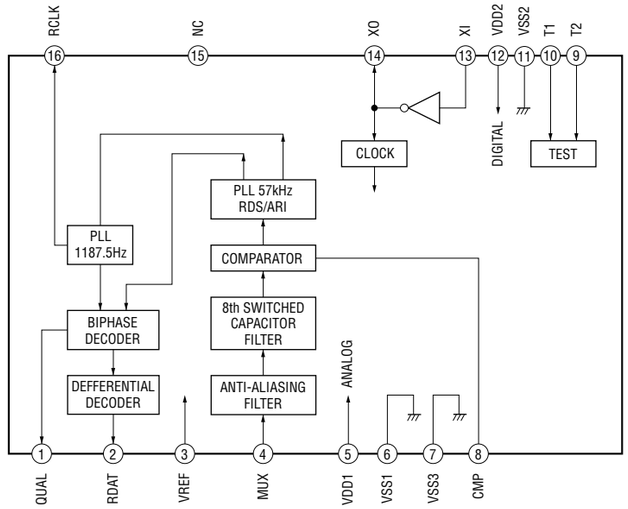
– MAIN R237 Board –

U102 CXD2587Q



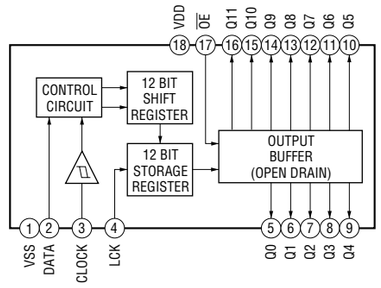
– MAIN Board –

IC103 BU1924F (AEP, UK models)



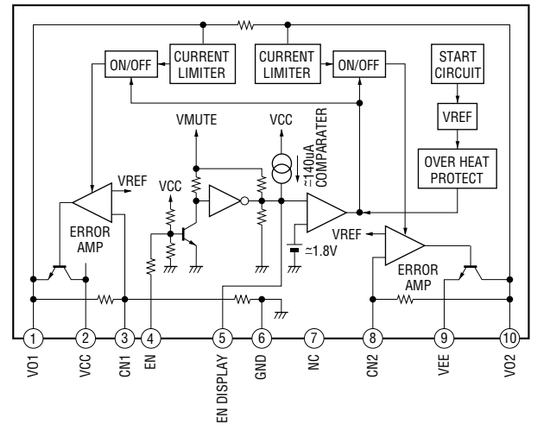
– FRONT Board –

IC631 BU2092F-E2



– POWER SUPPLY Board –

IC5 LA5617



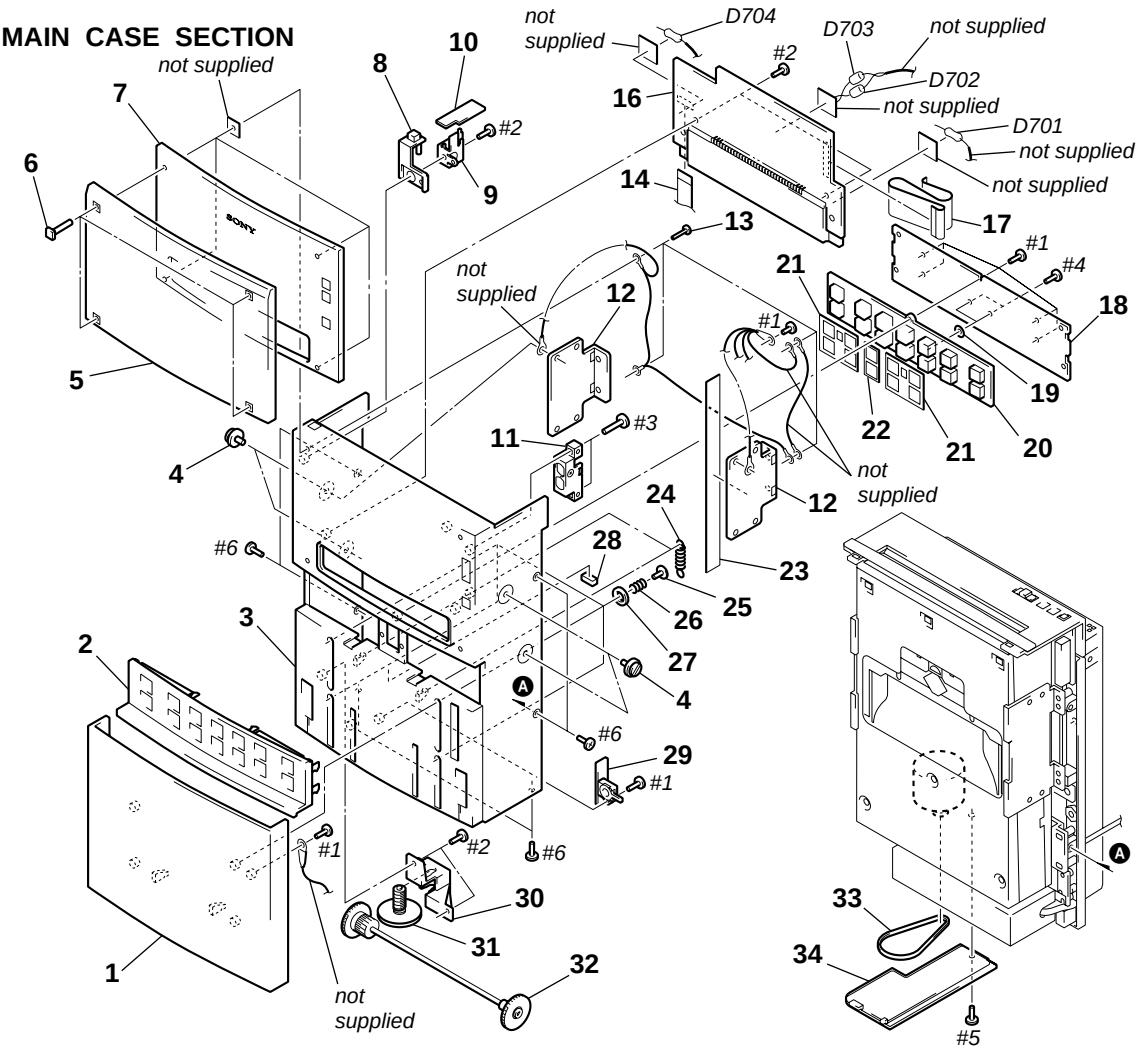
SECTION 6
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of the electrical parts list.

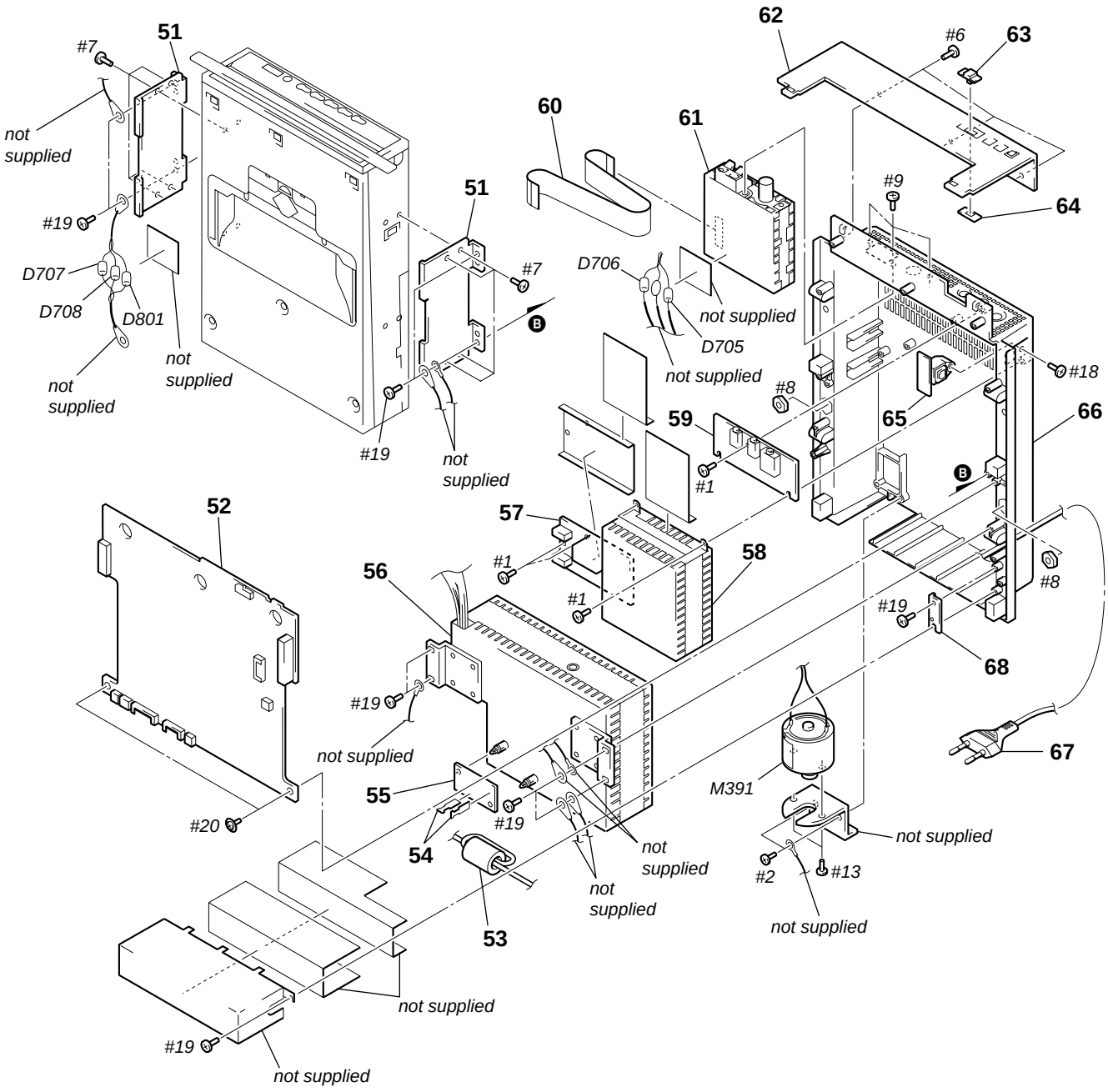
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) MAIN CASE SECTION


not supplied
D704
D703
not supplied
D702
not supplied
D701
not supplied
not supplied
not supplied

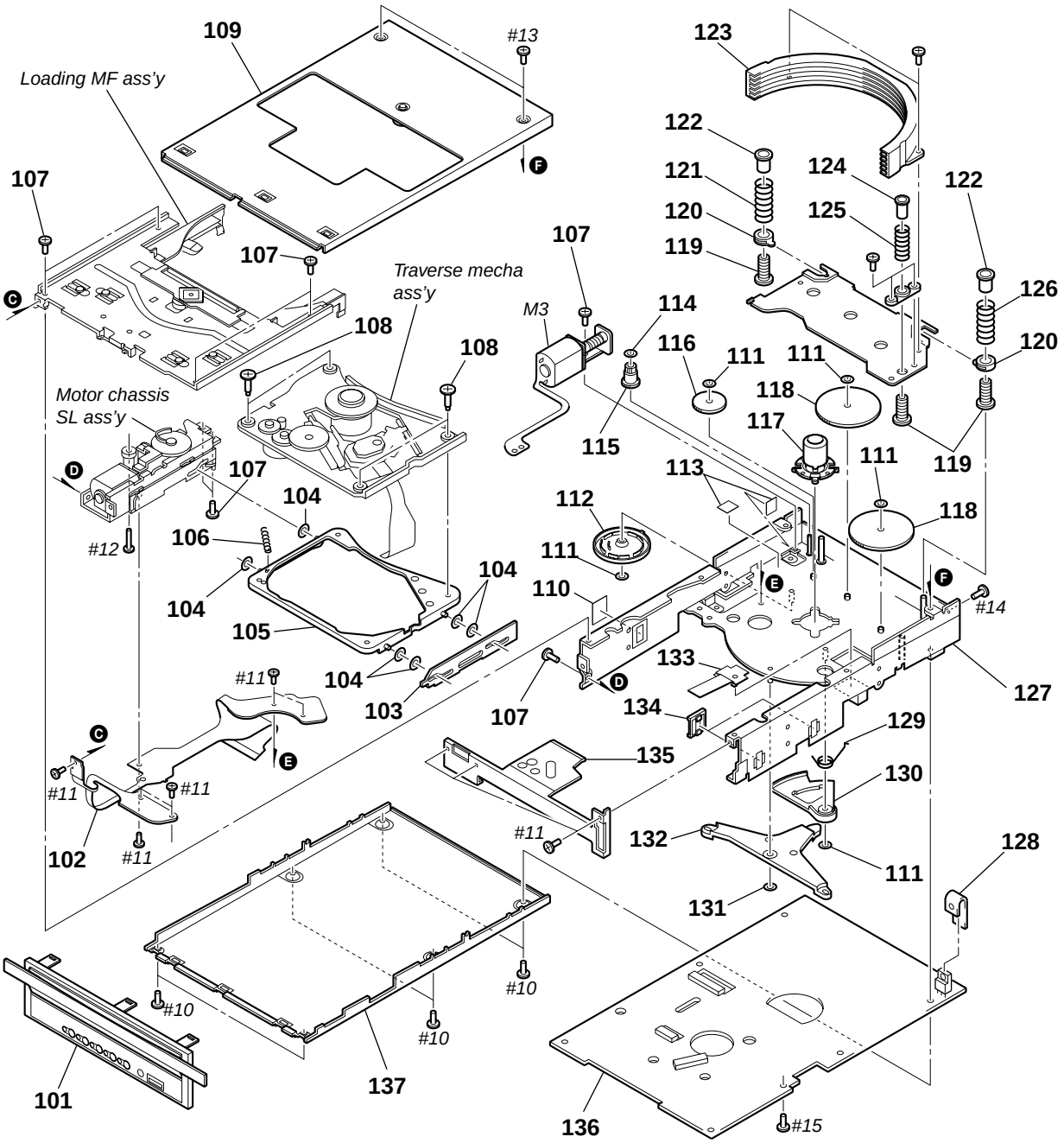
(2) BOTTOM CASE SECTION



Ref. No.	Part No.	Description	Remark
51	4-229-265-01	MECHA, HOLDER	
52	A-4473-561-A	MAIN BOARD, COMPLETE	
53	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
54	4-229-328-01	EGG TERMINAL	
55	1-678-395-11	AC BOARD	
56	A-4473-563-A	POWER SUPPLY BOARD, COMPLETE	
57	A-4473-565-A	RELAY BOARD, COMPLETE	
58	A-4473-564-A	AMP BOARD, COMPLETE	
59	A-4473-566-A	JACK BOARD, COMPLETE	
60		FFC (15CORE)	
61	1-693-473-21	TUNER PACK (FM/AM)	
62	X-4953-038-1	TOP PANEL ASSY	

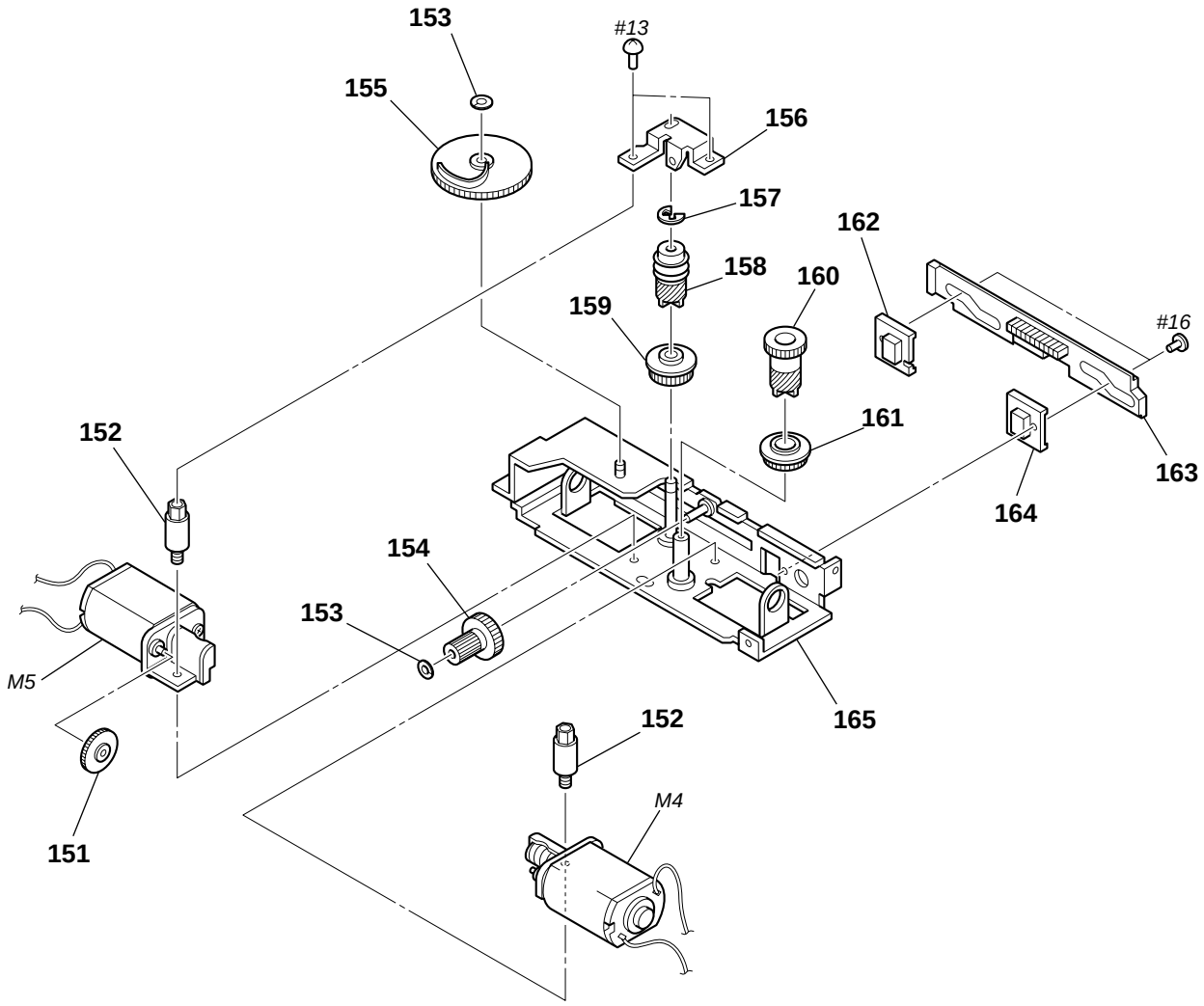
Ref. No.	Part No.	Description	Remark
63	4-229-260-01	SLIDE KNOB	
64		SLIDE KNOB PLATE	
65	A-4473-562-A	PHOTO JACK BOARD, COMPLETE	
66	4-229-258-01	BOTTOM CASE	
67	1-792-757-11	AC CORD (POWER)	
68	4-229-263-01	AC CORD STOPPER	
D705	8-719-991-33	DIODE 1SS133T-77	
D706	8-719-991-33	DIODE 1SS133T-77	
D707	8-719-991-33	DIODE 1SS133T-77	
D708	8-719-991-33	DIODE 1SS133T-77	
D801	8-719-070-85	DIODE KU381-4	
M391	X-4953-037-1	MOTOR PULLEY ASSY (DOOR)	

(3) MECHANISM DECK SECTION-1 (HG-1: MAIN SECTION)



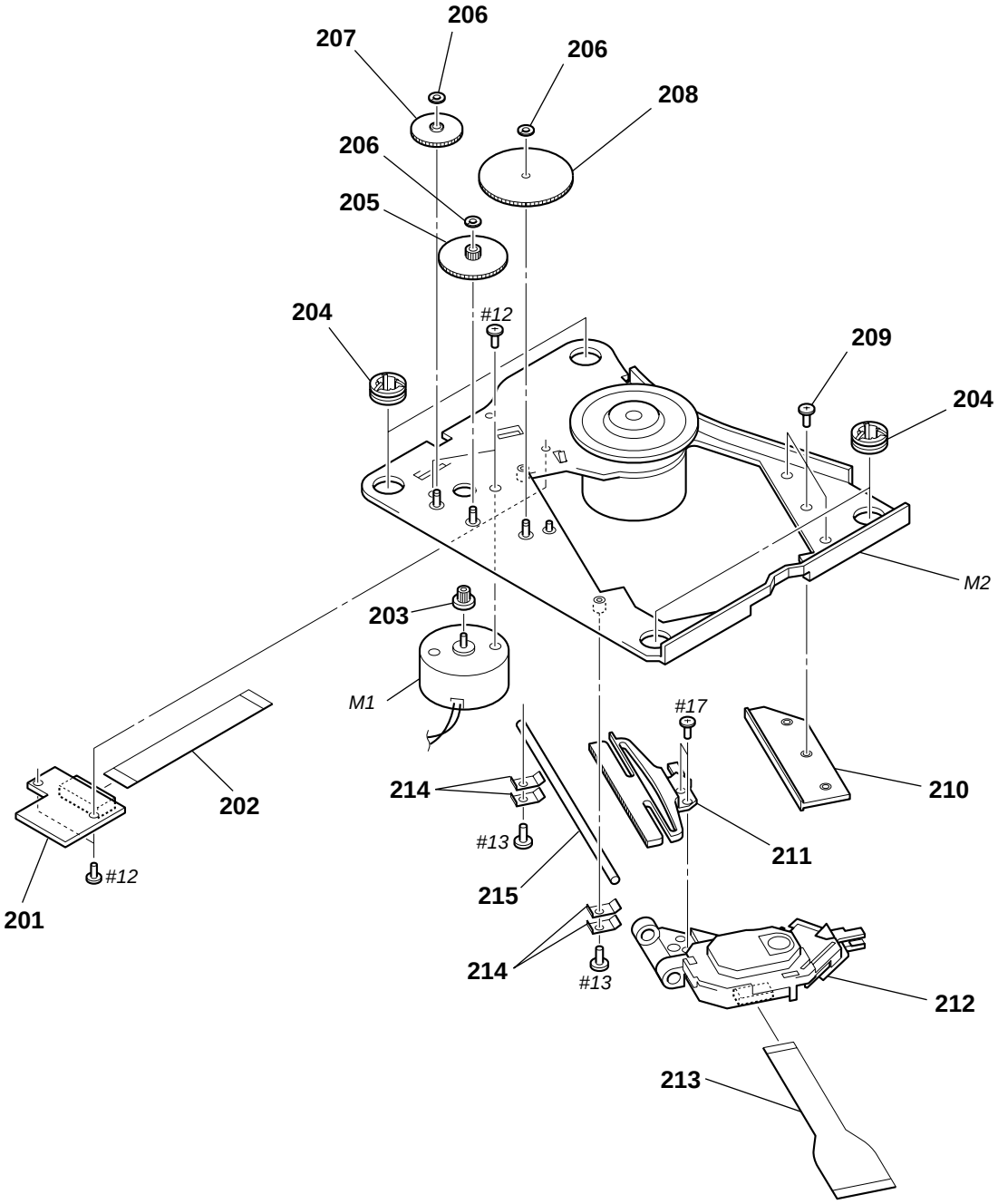
Ref. No.	Part No.	Description	Remark
101	4-229-348-01	F PANEL ASSY R237	
102	4-229-314-01	PCB FLEX MECHA ASSY	
103	4-229-318-01	MECH UD SUB CAM SL	
104	4-229-315-01	PET WASHER	
105	4-229-312-01	SUS BASE X SUB ASSY	
106	4-229-324-01	ANTI RATTLE SP SL	
107	4-229-295-01	SCREW 2.6X3	
108	4-229-325-01	DAMPER SCREW SL	
109	4-229-350-01	TOP COVER HS ASSY	
110	4-229-327-01	DUST SEAL EMA SL	
111	4-229-311-01	WASHER	
112	4-229-287-01	STC POS GEAR SL	
113	4-229-293-01	STC MOTOR SHEET SL	
114	4-229-294-01	WASHER	
115	4-229-291-01	STC WORM GEAR SL	
116	4-229-286-01	STC C IDLE GEAR SL	
117	4-229-283-01	DISC LOCK SL ASSY	
118	4-229-292-01	STC IDLE GEAR SL	
119		STC SCREW GEAR SL	
120		STC SCREW NUT A SL	
121	4-229-320-01	STC SPRING B SL	
122	4-229-317-01	STC SP CAP A SL	
123		STOCKER CD SL	
124	4-229-316-01	STC SP CAP B SL	
125	4-229-319-01	STC SPRING A SL	
126	4-229-321-01	STC SPRING C SL	
127	4-229-282-01	MA CHASSIS SL S ASSY	
128	4-229-351-01	HEAT SINK REG	
129	4-229-289-01	D LOCK SPRING SL	
130	4-229-288-01	DISC LOCK ARM SL	
131	4-229-326-01	WASHER	
132	4-229-322-01	UD LINK ARM SL	
133	4-229-323-01	PLATE SPRING SL	
134	4-229-290-01	UD S CAM GUIDE SL	
135	4-229-313-01	FR CHASSIS SL ASSY	
136	A-4473-555-A	MAIN R237 BOARD, COMPLETE	
137	4-229-349-01	BOTTOM COVER MF ASSY	
M3	4-229-284-01	STC MOTOR SL ASSY (STOCKER)	

(4) MECHANISM DECK SECTION-2
(HG-1: MOTOR CHASSIS SL ASS'Y)



Ref. No.	Part No.	Description	Remark
151	4-229-306-01	EMERGENCY GEAR SL	
152	4-229-308-01	BRACKET SCREW SL	
153	4-229-311-01	WASHER	
154	4-229-301-01	MECHA UD GEAR SL	
155	4-229-305-01	LDG PLATE CAM SL	
156	4-229-307-01	UD WORM PLATE SL	
157	4-229-310-01	E-RING	
158	4-229-300-01	UD WORM GEAR SL	
159	4-229-302-01	MEC SENSOR RING SL	
160	4-229-303-01	LDG WORM GEAR SL	
161	4-229-304-01	LDG SENSOR RING SL	
162		UD CAM GUIDE SL	
163	4-229-299-01	UD CAM SL	
164	4-229-309-01	UD CAM GUIDE W SL	
165	4-229-296-01	MO CHASSIS SL S ASSY	
M4	4-229-297-01	LDG MOTOR SL ASSY (LOADING)	
M5	4-229-298-01	UD MOTOR SL ASSY (UP/DOWN)	

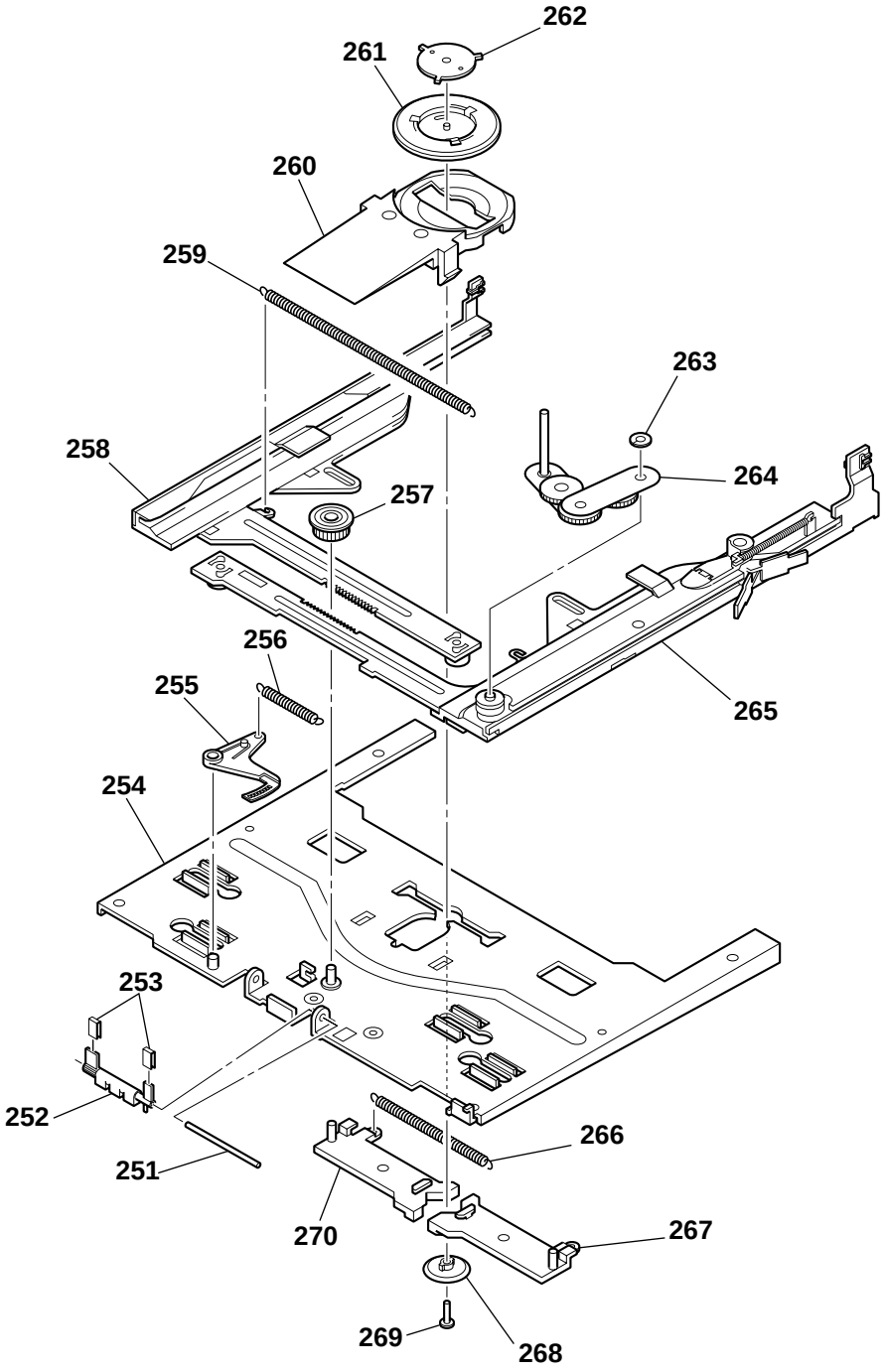
(5) MECHANISM DECK SECTION-3 (HG-1: TRAVERSE MECHA ASS'Y)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
201	4-229-268-01	TRA ASSY V619	
202	1-792-692-11	WIRE FLEXIBLE BOARD	
203	4-229-276-01	FIRST GEAR	
204	4-229-273-01	DAMPER S SL	
205	4-229-278-01	THIRD GEAR	
206	4-229-294-01	WASHER	
207	4-229-277-01	SECOND GEAR	
208	4-229-272-01	POWER GEAR	
209	4-229-280-01	SCREW 2X4	
210	4-229-275-01	PU G PLATE H SL	
211	4-229-279-01	RACK CA	
⚠212	1-251-883-11	OPTICAL PICK-UP KSS-540A	
213	1-678-133-11	PICK-UP FLEXIBLE BOARD	
214	4-229-271-01	SH LOCK PLATE SL	
215	4-229-270-01	PU GUIDE SHAFT SL	
M1	1-763-519-11	MOTOR (SLED)	
M2	4-229-269-01	DISC MOTOR CH ASSY (SPINDLE)	

(6) MECHANISM DECK SECTION-4 (HG-1: LOADING MF ASS'Y)



Ref. No.	Part No.	Description	Remark
251	4-229-188-01	SHUT ARM SHAFT SL	
252	4-229-193-01	SHUTTER ARM SL	
253	4-229-187-01	SHUT ARM CUSH SL	
254		LOADING CHASSIS SL ASSY	
255	4-229-196-01	SHUTTER LEVER SL	
256	4-229-192-01	SHUTTER SPRING SL	
257	4-229-191-01	LDG CENTER GEAR SL	
258	4-229-183-01	LOADING L MF ASSY	
259	4-229-190-01	LDG RETURN SP SL	
260	4-229-197-01	DISC G UPPER SL	
261	4-229-200-01	DISC CRAMP BASE	
262	4-229-198-01	STEEL RING	
263	4-229-294-01	WASHER	
264	4-229-185-01	LDG LINK SL ASSY	
265	4-229-184-01	LOADING R MF ASSY	
266	4-229-189-01	CLAMPER RE SP SL	
267	4-229-195-01	CLAMP HOLDER L SL	
268	4-229-199-01	CLAMP TOP	
269	4-229-186-01	BT 1.7X5 +PAN (0 TYPE 3)	
270	4-229-194-01	CLAMP HOLDER R SL	

SECTION 7
ELECTRICAL PARTS LIST

AC **AMP**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	1-678-395-11	AC BOARD			
		*********			
	4-229-206-01	TERMINAL PIN (K)			
	4-229-207-01	TERMINAL PIN (L)			
	1-576-450-11	FUSE HOLDER			
		< FUSE >			
⚠F501	1-532-465-31	FUSE (3.15A/250V)			
**********					
	A-4473-564-A	AMP BOARD, COMPLETE			
		**********			
	4-229-344-01	SCREW (3X1), TAPPING			
	4-229-345-01	INSULATING SHEET (A)			
	4-229-346-01	INSULATING SHEET (B)			
		< CAPACITOR >			
C501	1-136-165-00	MYLAR	0.1uF	5%	50V
C502	1-136-165-00	MYLAR	0.1uF	5%	50V
C503	1-136-846-11	MYLAR	1.5uF	5%	50V
C504	1-136-846-11	MYLAR	1.5uF	5%	50V
C505	1-136-846-11	MYLAR	1.5uF	5%	50V
C506	1-136-846-11	MYLAR	1.5uF	5%	50V
C507	1-126-012-11	ELECT	470uF	20%	16V
C508	1-126-012-11	ELECT	470uF	20%	16V
C509	1-126-044-11	ELECT	1uF	20%	50V
C510	1-126-044-11	ELECT	1uF	20%	50V
C511	1-126-052-11	ELECT	100uF	20%	16V
C512	1-126-052-11	ELECT	100uF	20%	16V
C513	1-136-177-00	MYLAR	1uF	5%	50V
C514	1-136-165-00	MYLAR	0.1uF	5%	50V
C515	1-124-360-00	ELECT	1000uF	20%	16V
C516	1-124-360-00	ELECT	1000uF	20%	16V
C517	1-136-177-00	MYLAR	1uF	5%	50V
C528	1-136-165-00	MYLAR	0.1uF	5%	50V
C529	1-136-165-00	MYLAR	0.1uF	5%	50V
C532	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C533	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C534	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C535	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C536	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C537	1-136-169-00	MYLAR	0.22uF	5%	50V
C538	1-136-169-00	MYLAR	0.22uF	5%	50V
C539	1-136-169-00	MYLAR	0.22uF	5%	50V
C540	1-136-169-00	MYLAR	0.22uF	5%	50V
C541	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C542	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C543	1-126-933-11	ELECT	100uF	20%	16V
C550	1-124-724-11	ELECT	47uF	20%	16V
C557	1-137-505-11	MYLAR	220PF	5%	50V
C558	1-137-505-11	MYLAR	220PF	5%	50V
C591	1-135-838-11	CERAMIC	2000PF		
C592	1-135-838-11	CERAMIC	2000PF		
C593	1-135-838-11	CERAMIC	2000PF		
C594	1-135-838-11	CERAMIC	2000PF		
C595	1-135-838-11	CERAMIC	2000PF		
C596	1-135-838-11	CERAMIC	2000PF		
C597	1-135-838-11	CERAMIC	2000PF		
C598	1-135-838-11	CERAMIC	2000PF		
C599	1-135-838-11	CERAMIC	2000PF		
		< DIODE >			
D501	8-719-210-21	DIODE 11EQS04			
D502	8-719-210-21	DIODE 11EQS04			
D503	8-719-210-21	DIODE 11EQS04			
D504	8-719-210-21	DIODE 11EQS04			
D514	8-719-820-58	DIODE 1SS177			
D515	8-719-820-58	DIODE 1SS177			
D516	8-719-820-58	DIODE 1SS177			
		< IC >			
IC501	8-759-638-11	IC TA2020-020			
IC503	8-759-100-96	IC NJM4558M			
		< COIL >			
L501	1-419-281-11	INDUCTOR	10uH		
L502	1-419-281-11	INDUCTOR	10uH		
L503	1-419-281-11	INDUCTOR	10uH		
L504	1-419-281-11	INDUCTOR	10uH		
L505	1-419-282-11	INDUCTOR	10uH		
L506	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
⚠R501	1-215-857-11	METAL OXIDE	10	5%	1W F
⚠R502	1-215-857-11	METAL OXIDE	10	5%	1W F
R503	1-216-222-00	RES, CHIP	10K	5%	1/8W

AMP | **DOOR SW** | **FRONT**

Ref. No.	Part No.	Description			Remark
R504	1-216-222-00	RES, CHIP	10K	5%	1/8W
R505	1-216-230-00	RES, CHIP	22K	5%	1/8W
R506	1-216-230-00	RES, CHIP	22K	5%	1/8W
R507	1-216-220-00	RES, CHIP	8.2K	5%	1/8W
R508	1-216-246-00	RES, CHIP	100K	5%	1/8W
R528	1-216-270-00	RES, CHIP	1M	5%	1/8W
R529	1-216-270-00	RES, CHIP	1M	5%	1/8W
R530	1-216-270-00	RES, CHIP	1M	5%	1/8W
R531	1-216-270-00	RES, CHIP	1M	5%	1/8W
R532	1-216-262-00	RES, CHIP	470K	5%	1/8W
R533	1-216-262-00	RES, CHIP	470K	5%	1/8W
R534	1-216-262-00	RES, CHIP	470K	5%	1/8W
R535	1-216-262-00	RES, CHIP	470K	5%	1/8W
R536	1-216-174-00	RES, CHIP	100	5%	1/8W
**********					
	1-678-386-11	DOOR SW BOARD			
		**********			
		< RESISTOR >			
R691	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S691	1-771-960-11	LEAF SW (DOOR OPEN/CLOSE)			
**********					
	A-4473-557-A	FRONT BOARD, COMPLETE			
		**********			
	4-229-202-01	BACK LIGHT WINDOW			
		< CAPACITOR >			
C601	1-126-916-11	ELECT	1000uF	20%	6.3V
C602	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C603	1-125-972-91	ELECT	100uF	20%	16V
C604	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C606	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C607	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C608	1-126-160-11	ELECT	1uF	20%	50V
C609	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C610	1-124-589-11	ELECT	47uF	20%	16V
C612	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C613	1-126-160-11	ELECT	1uF	20%	50V
C622	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C625	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C626	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C631	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C632	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C633	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C634	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C635	1-124-247-91	ELECT	10uF	20%	35V
		< CONNECTOR >			
CN602	1-794-485-11	CONNECTOR 12P			
CN604	1-794-484-11	CONNECTOR 26P			
CN605	1-794-486-11	CONNECTOR 3P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D601	8-719-200-02	DIODE 1N4002			
D602	8-719-200-02	DIODE 1N4002			
D603	8-719-991-33	DIODE 1SS133T-77			
D604	8-719-991-33	DIODE 1SS133T-77			
D605	8-719-991-33	DIODE 1SS133T-77			
D606	8-719-991-33	DIODE 1SS133T-77			
D607	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC601	8-759-677-45	IC LC867232A-5P06			
IC631	8-759-396-78	IC BU2092F-E2			
		< RESISTOR >			
JW601	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
		< COIL >			
L601	1-419-636-11	COIL, CHOKE			
		< LIQUID CRYSTAL DISPLAY >			
LCD601	1-804-047-11	LCD			
		< LED >			
LED601	8-719-069-45	LED SELU5E23C-TP15 (LCD BACK LIGHT)			
LED602	8-719-069-45	LED SELU5E23C-TP15 (LCD BACK LIGHT)			
LED603	8-719-069-45	LED SELU5E23C-TP15 (LCD BACK LIGHT)			
LED604	8-719-069-45	LED SELU5E23C-TP15 (LCD BACK LIGHT)			
		< TRANSISTOR >			
Q601	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q602	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q613	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q614	8-729-029-66	TRANSISTOR DTC114ESA			
Q615	8-729-029-66	TRANSISTOR DTC114ESA			
Q631	8-729-052-45	FET 2SJ461			
Q632	8-729-052-45	FET 2SJ461			
		< RESISTOR >			
R601	1-216-089-00	RES, CHIP	47K	5%	1/10W
R602	1-216-049-11	RES, CHIP	1K	5%	1/10W
R603	1-216-089-00	RES, CHIP	47K	5%	1/10W
R604	1-216-089-00	RES, CHIP	47K	5%	1/10W
R605	1-216-049-11	RES, CHIP	1K	5%	1/10W
R607	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R608	1-216-049-11	RES, CHIP	1K	5%	1/10W
R609	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R610	1-216-049-11	RES, CHIP	1K	5%	1/10W
R611	1-216-049-11	RES, CHIP	1K	5%	1/10W
R612	1-216-049-11	RES, CHIP	1K	5%	1/10W
R613	1-216-049-11	RES, CHIP	1K	5%	1/10W
R614	1-216-049-11	RES, CHIP	1K	5%	1/10W
R615	1-249-049-11	CARBON	1K	5%	1/4W
R616	1-249-049-11	CARBON	1K	5%	1/4W
R617	1-216-049-11	RES, CHIP	1K	5%	1/10W
R618	1-249-049-11	CARBON	1K	5%	1/4W
R619	1-249-049-11	CARBON	1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R620	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R621	1-249-429-11	CARBON	10K	5%	1/4W
R622	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-216-097-00	RES, CHIP	100K	5%	1/10W
R624	1-216-097-00	RES, CHIP	100K	5%	1/10W
R625	1-216-097-00	RES, CHIP	100K	5%	1/10W
R626	1-216-097-00	RES, CHIP	100K	5%	1/10W
R627	1-216-021-00	METAL CHIP	68	5%	1/10W
R628	1-216-021-00	METAL CHIP	68	5%	1/10W
R630	1-216-049-91	RES, CHIP	1K	5%	1/10W
R631	1-216-097-00	RES, CHIP	100K	5%	1/10W
R632	1-216-097-00	RES, CHIP	100K	5%	1/10W
R633	1-216-029-00	RES, CHIP	150	5%	1/10W
R641	1-216-073-00	METAL CHIP	10K	5%	1/10W
R642	1-216-073-00	METAL CHIP	10K	5%	1/10W
R643	1-216-073-00	METAL CHIP	10K	5%	1/10W
R644	1-216-073-00	METAL CHIP	10K	5%	1/10W
R645	1-216-073-00	METAL CHIP	10K	5%	1/10W
R646	1-216-073-00	METAL CHIP	10K	5%	1/10W
R648	1-216-073-00	METAL CHIP	10K	5%	1/10W
R649	1-216-073-00	METAL CHIP	10K	5%	1/10W
R650	1-216-073-00	METAL CHIP	10K	5%	1/10W
R658	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R659	1-216-089-00	RES, CHIP	47K	5%	1/10W
R685	1-216-045-00	METAL CHIP	680	5%	1/10W
R686	1-216-045-00	METAL CHIP	680	5%	1/10W
		< IC >			
SEN601	8-749-017-81	IC SPS-446 (REMOTE CONTROL RECEIVER)			
		< VIBRATOR >			
X601	1-781-679-11	VIBRATOR, CRYSTAL (5MHz)			

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	A-4473-566-A	JACK BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C203	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C205	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C206	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C518	1-128-526-11	ELECT	220uF	20%	10V
C519	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C520	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C523	1-126-868-11	ELECT	47uF	20%	50V
C524	1-126-868-11	ELECT	47uF	20%	50V
C525	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C526	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C530	1-104-942-11	ELECT	1uF	20%	50V
C531	1-104-942-11	ELECT	1uF	20%	50V
C547	1-128-526-11	ELECT	220uF	20%	10V
C548	1-126-163-11	ELECT	4.7uF	20%	50V
C549	1-126-163-11	ELECT	4.7uF	20%	50V
C551	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C552	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C553	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C554	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C555	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C556	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
		< DIODE >			
D201	8-719-947-61	DIODE MTZJ-T-72-15B			
D202	8-719-947-61	DIODE MTZJ-T-72-15B			
D203	8-719-947-61	DIODE MTZJ-T-72-15B			
D204	8-719-947-61	DIODE MTZJ-T-72-15B			
D205	8-719-820-58	DIODE 1SS177			
D206	8-719-820-58	DIODE 1SS177			
D508	8-719-947-61	DIODE MTZJ-T-72-15B			
D509	8-719-947-61	DIODE MTZJ-T-72-15B			
D510	8-719-820-58	DIODE 1SS177			
D511	8-719-820-58	DIODE 1SS177			
		< IC >			
IC502	8-759-711-82	IC NJM4580E			
		< JACK >			
JK201	1-563-281-41	JACK (TAPE OUT)			
JK202	1-563-281-41	JACK (TAPE IN)			
JK501	1-794-492-11	HP JACK (PHONES)			
		< TRANSISTOR >			
Q502	8-729-231-55	TRANSISTOR 2SC2878-A			
Q503	8-729-231-55	TRANSISTOR 2SC2878-A			
		< RESISTOR >			
R511	1-216-138-00	RES, CHIP	3.3	5%	1/8W
R513	1-216-206-00	RES, CHIP	2.2K	5%	1/8W
R514	1-216-206-00	RES, CHIP	2.2K	5%	1/8W
R515	1-216-238-91	RES, CHIP	47K	5%	1/8W
R516	1-216-238-91	RES, CHIP	47K	5%	1/8W
R517	1-216-210-00	RES, CHIP	3.3K	5%	1/8W
R518	1-216-210-00	RES, CHIP	3.3K	5%	1/8W
R519	1-216-254-00	RES, CHIP	220K	5%	1/8W
R520	1-216-254-00	RES, CHIP	220K	5%	1/8W
R521	1-216-190-00	RES, CHIP	470	5%	1/8W
R522	1-216-190-00	RES, CHIP	470	5%	1/8W
R523	1-216-182-00	RES, CHIP	220	5%	1/8W
R524	1-216-150-00	RES, CHIP	10	5%	1/8W
R525	1-216-150-00	RES, CHIP	10	5%	1/8W
R526	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R527	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R550	1-216-182-00	RES, CHIP	220	5%	1/8W
R552	1-216-230-00	RES, CHIP	22K	5%	1/8W
R553	1-216-230-00	RES, CHIP	22K	5%	1/8W

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	A-4473-561-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-130-471-00	MYLAR	0.001uF	5%	50V
C104	1-130-471-00	MYLAR	0.001uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C157	1-124-589-11	ELECT	47uF	20%	16V (AEP, UK)
C158	1-163-135-00	CERAMIC CHIP	560PF	5%	50V (AEP, UK)
C159	1-163-127-00	CERAMIC CHIP	270PF	5%	50V (AEP, UK)
C160	1-126-162-11	ELECT	3.3uF	20%	50V (AEP, UK)
C161	1-124-589-11	ELECT	47uF	20%	16V (AEP, UK)
C162	1-102-518-11	CERAMIC	33PF	5%	50V (AEP, UK)
C163	1-102-518-11	CERAMIC	33PF	5%	50V (AEP, UK)
C201	1-130-471-00	MYLAR	0.001uF	5%	50V
C202	1-130-471-00	MYLAR	0.001uF	5%	50V
C203	1-126-045-11	ELECT	2.2uF	20%	50V
C204	1-126-045-11	ELECT	2.2uF	20%	50V
C205	1-126-045-11	ELECT	2.2uF	20%	50V
C206	1-126-045-11	ELECT	2.2uF	20%	50V
C207	1-137-503-11	MYLAR	0.0001uF	5%	50V
C208	1-137-503-11	MYLAR	0.0001uF	5%	50V
C209	1-126-045-11	ELECT	2.2uF	20%	50V
C210	1-126-045-11	ELECT	2.2uF	20%	50V
C211	1-126-045-11	ELECT	2.2uF	20%	50V
C212	1-126-045-11	ELECT	2.2uF	20%	50V
C213	1-130-471-00	MYLAR	0.001uF	5%	50V
C214	1-130-471-00	MYLAR	0.001uF	5%	50V
C215	1-126-045-11	ELECT	2.2uF	20%	50V
C216	1-126-045-11	ELECT	2.2uF	20%	50V
C220	1-124-673-11	ELECT	100uF	20%	10V
C231	1-137-440-11	MYLAR	0.018uF	5%	50V
C232	1-137-440-11	MYLAR	0.018uF	5%	50V
C233	1-137-372-11	MYLAR	0.022uF	5%	50V
C234	1-137-372-11	MYLAR	0.022uF	5%	50V
C235	1-130-495-00	MYLAR	0.1uF	5%	50V
C236	1-130-495-00	MYLAR	0.1uF	5%	50V
C237	1-130-495-00	MYLAR	0.1uF	5%	50V
C238	1-130-495-00	MYLAR	0.1uF	5%	50V
C239	1-137-437-11	MYLAR	0.0056uF	5%	50V
C240	1-137-437-11	MYLAR	0.0056uF	5%	50V
C241	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C242	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C243	1-124-261-00	ELECT	10uF	20%	50V
C249	1-130-495-00	MYLAR	0.1uF	5%	50V
C251	1-124-257-00	ELECT	2.2uF	20%	50V
C252	1-124-257-00	ELECT	2.2uF	20%	50V
C253	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C255	1-125-972-91	ELECT	100uF	20%	16V
C256	1-125-972-91	ELECT	100uF	20%	16V
C257	1-124-464-11	ELECT	0.22uF	20%	50V
C271	1-126-045-11	ELECT	2.2uF	20%	50V
C272	1-126-045-11	ELECT	2.2uF	20%	50V
C290	1-124-673-11	ELECT	100uF	20%	10V
C301	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C302	1-125-972-91	ELECT	100uF	20%	16V
C305	1-125-972-91	ELECT	100uF	20%	16V
C306	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C307	1-125-972-91	ELECT	100uF	20%	16V
C308	1-125-972-91	ELECT	100uF	20%	16V
C309	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C310	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C312	1-125-972-91	ELECT	100uF	20%	16V
C313	1-125-972-91	ELECT	100uF	20%	16V
C316	1-124-589-11	ELECT	47uF	20%	16V
C321	1-126-045-11	ELECT	2.2uF	20%	50V
C322	1-126-045-11	ELECT	2.2uF	20%	50V
C323	1-137-361-11	MYLAR	330PF	5%	50V
C324	1-137-361-11	MYLAR	330PF	5%	50V
C325	1-137-378-11	MYLAR	0.22uF	5%	50V
C326	1-128-526-11	ELECT	220uF	20%	10V
C327	1-137-361-11	MYLAR	330PF	5%	50V
C328	1-137-361-11	MYLAR	330PF	5%	50V
C329	1-137-361-11	MYLAR	330PF	5%	50V
C330	1-137-361-11	MYLAR	330PF	5%	50V
C331	1-124-465-00	ELECT	0.47uF	20%	50V
C333	1-124-673-11	ELECT	100uF	20%	10V
C334	1-124-673-11	ELECT	100uF	20%	10V
C355	1-130-495-00	MYLAR	0.1uF	5%	50V
C356	1-130-495-00	MYLAR	0.1uF	5%	50V
C357	1-130-495-00	MYLAR	0.1uF	5%	50V
C358	1-130-495-00	MYLAR	0.1uF	5%	50V
C359	1-137-503-11	MYLAR	0.0001uF	5%	50V
C360	1-137-503-11	MYLAR	0.0001uF	5%	50V
C362	1-128-526-11	ELECT	220uF	20%	10V
C367	1-136-356-11	MYLAR	470PF	5%	50V
C368	1-136-356-11	MYLAR	470PF	5%	50V
C381	1-126-045-11	ELECT	2.2uF	20%	50V
C382	1-126-045-11	ELECT	2.2uF	20%	50V
C383	1-126-045-11	ELECT	2.2uF	20%	50V
C384	1-126-045-11	ELECT	2.2uF	20%	50V
C385	1-124-261-00	ELECT	10uF	20%	50V
C386	1-124-261-00	ELECT	10uF	20%	50V
C387	1-124-257-00	ELECT	2.2uF	20%	50V
C388	1-124-257-00	ELECT	2.2uF	20%	50V
C389	1-124-257-00	ELECT	2.2uF	20%	50V
C391	1-124-261-00	ELECT	10uF	20%	50V
C392	1-124-261-00	ELECT	10uF	20%	50V
C399	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

	Ref. No.	Part No.	Description
	CN101	1-794-490-11	CONNECTOR 15P
	CN201	1-564-723-11	PIN, CONNECTOR (SMALL TYPE) 7P
	CN202	1-794-488-11	CONNECTOR
*	CN203	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P
	CN204	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P
	CN301	1-564-723-11	PIN, CONNECTOR (SMALL TYPE) 7P
*	CN302	1-564-719-31	PIN, CONNECTOR (SMALL TYPE) 3P
*	CN303	1-564-725-11	PIN, CONNECTOR (SMALL TYPE) 9P
	CN391	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P
	CN604	1-794-489-11	CONNECTOR 26P

< DIODE >

Ref. No.	Part No.	Description
D251	8-719-921-49	DIODE MTZJ-6.2
D252	8-719-921-49	DIODE MTZJ-6.2
D253	8-719-991-33	DIODE 1SS133T-77

Ref. No.	Part No.	Description			Remark
D254	8-719-991-33	DIODE 1SS133T-77			
D304	8-719-109-97	DIODE RD6.8ESB2			
D312	8-719-991-33	DIODE 1SS133T-77			
D316	8-719-991-33	DIODE 1SS133T-77			
D321	8-719-991-33	DIODE 1SS133T-77			
D352	8-719-991-33	DIODE 1SS133T-77			
D391	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC103	8-759-560-51	IC BU1924F (AEP, UK)			
IC201	8-759-476-86	IC TDA7438D013TR			
IC251	8-759-100-96	IC NJM4558M			
IC321	8-759-711-82	IC NJM4580E			
IC351	8-759-711-82	IC NJM4580E			
IC390	8-759-332-39	IC NJM7806FA			
IC391	8-759-675-71	IC TA8409F			
		< COIL >			
L101	1-410-330-11	INDUCTOR 22uH			
		< TRANSISTOR >			
Q201	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q202	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q203	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q204	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q205	8-729-052-45	FET 2SJ461			
Q301	8-729-216-22	TRANSISTOR 2SA812-T1M5			
Q302	8-729-141-83	TRANSISTOR 2SB1015-O			
Q303	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q304	8-729-141-75	TRANSISTOR 2SD596-DV3			
Q305	8-729-922-34	TRANSISTOR 2SD1758F5-Q			
Q306	8-729-216-22	TRANSISTOR 2SA812-T1M5			
Q311	8-729-216-22	TRANSISTOR 2SA812-T1M5			
Q312	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q313	8-729-052-45	FET 2SJ461			
Q316	8-729-216-22	TRANSISTOR 2SA812-T1M5			
Q317	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q321	8-729-048-99	FET 2SK2541-T			
Q351	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q352	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q371	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q372	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q373	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q374	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q375	8-729-422-57	TRANSISTOR DTA114ES			
Q376	8-729-029-66	TRANSISTOR DTC114ES			
Q377	8-729-029-66	TRANSISTOR DTC114ES			
Q381	8-729-231-55	TRANSISTOR 2SC2878-A			
Q382	8-729-231-55	TRANSISTOR 2SC2878-A			
Q383	8-729-120-28	TRANSISTOR 2SC1623-L6			
Q384	8-729-120-28	TRANSISTOR 2SC1623-L6			
		< RESISTOR >			
R142	1-249-405-11	CARBON	100	5%	1/4W (AEP, UK)
R143	1-216-025-00	RES, CHIP	100	5%	1/10W (AEP, UK)
R144	1-216-025-00	RES, CHIP	100	5%	1/10W (AEP, UK)
R145	1-216-025-00	RES, CHIP	100	5%	1/10W (AEP, UK)
R201	1-216-077-00	RES, CHIP	15K	5%	1/10W
R202	1-216-077-00	RES, CHIP	15K	5%	1/10W
R203	1-216-085-00	METAL CHIP	33K	5%	1/10W
R204	1-216-085-00	METAL CHIP	33K	5%	1/10W
R209	1-216-089-00	RES, CHIP	47K	5%	1/10W
R210	1-216-089-00	RES, CHIP	47K	5%	1/10W
R211	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R212	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R213	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R214	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R215	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R216	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R217	1-216-049-00	METAL CHIP	1K	5%	1/10W
R218	1-216-049-00	METAL CHIP	1K	5%	1/10W
R219	1-216-121-00	METAL CHIP	1M	5%	1/10W
R220	1-216-121-00	METAL CHIP	1M	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-247-704-11	CARBON	220	5%	1/4W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R228	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R229	1-216-073-00	METAL CHIP	10K	5%	1/10W
R230	1-216-073-00	METAL CHIP	10K	5%	1/10W
R231	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R232	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R233	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R234	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R235	1-216-049-11	RES, CHIP	1K	5%	1/10W
R236	1-216-049-11	RES, CHIP	1K	5%	1/10W
R237	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R238	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R251	1-216-089-00	RES, CHIP	47K	5%	1/10W
R252	1-216-089-00	RES, CHIP	47K	5%	1/10W
R253	1-216-119-00	METAL CHIP	820K	5%	1/10W
R254	1-216-081-00	METAL CHIP	22K	5%	1/10W
R256	1-247-704-11	CARBON	220	5%	1/4W
R257	1-216-091-00	METAL CHIP	56K	5%	1/10W
R258	1-216-113-00	METAL CHIP	470K	5%	1/10W
R281	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R282	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R302	1-247-717-11	CARBON	2.2K	5%	1/4W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-247-713-11	CARBON	1K	5%	1/4W
⚠R306	1-215-880-11	METAL OXIDE	100	5%	2W F
R307	1-247-716-11	CARBON	1.8K	5%	1/4W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R312	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R313	1-216-041-00	METAL CHIP	470	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

MAIN | MAIN R237

Ref. No.	Part No.	Description			Remark
R314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R315	1-216-097-00	RES, CHIP	100K	5%	1/10W
R316	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R317	1-216-073-00	METAL CHIP	10K	5%	1/10W
R318	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R321	1-216-049-11	RES, CHIP	1K	5%	1/10W
R322	1-216-049-11	RES, CHIP	1K	5%	1/10W
R325	1-216-097-00	RES, CHIP	100K	5%	1/10W
R326	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R327	1-216-089-00	RES, CHIP	47K	5%	1/10W
R328	1-216-089-00	RES, CHIP	47K	5%	1/10W
R329	1-216-113-00	METAL CHIP	470K	5%	1/10W
R331	1-216-073-00	METAL CHIP	10K	5%	1/10W
R332	1-216-073-00	METAL CHIP	10K	5%	1/10W
R333	1-216-073-00	METAL CHIP	10K	5%	1/10W
R334	1-216-073-00	METAL CHIP	10K	5%	1/10W
R351	1-216-295-00	SHORT	0		
R352	1-216-295-00	SHORT	0		
R353	1-216-081-00	METAL CHIP	22K	5%	1/10W
R354	1-216-081-00	METAL CHIP	22K	5%	1/10W
R355	1-216-089-00	RES, CHIP	47K	5%	1/10W
R356	1-216-089-00	RES, CHIP	47K	5%	1/10W
R357	1-216-105-00	RES, CHIP	220K	5%	1/10W
R358	1-216-105-00	RES, CHIP	220K	5%	1/10W
R359	1-216-295-00	SHORT	0		
R360	1-216-295-00	SHORT	0		
R361	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R362	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R363	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R364	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R365	1-216-121-00	METAL CHIP	1M	5%	1/10W
R366	1-216-121-00	METAL CHIP	1M	5%	1/10W
R367	1-216-073-00	METAL CHIP	10K	5%	1/10W
R368	1-216-073-00	METAL CHIP	10K	5%	1/10W
R369	1-216-081-00	METAL CHIP	22K	5%	1/10W
R370	1-216-081-00	METAL CHIP	22K	5%	1/10W
R373	1-216-113-00	METAL CHIP	470K	5%	1/10W
R375	1-216-073-00	METAL CHIP	10K	5%	1/10W
R376	1-216-073-00	METAL CHIP	10K	5%	1/10W
R377	1-216-113-00	METAL CHIP	470K	5%	1/10W
R379	1-216-073-00	METAL CHIP	10K	5%	1/10W
R381	1-216-073-00	RES, CHIP	10K	5%	1/10W
R387	1-216-049-11	RES, CHIP	1K	5%	1/10W
R388	1-216-049-11	RES, CHIP	1K	5%	1/10W
R389	1-216-081-00	METAL CHIP	22K	5%	1/10W
R390	1-216-081-00	METAL CHIP	22K	5%	1/10W
R391	1-216-049-11	RES, CHIP	1K	5%	1/10W
R392	1-216-049-11	RES, CHIP	1K	5%	1/10W
R393	1-216-073-00	METAL CHIP	10K	5%	1/10W
R394	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R397	1-216-105-00	RES, CHIP	220K	5%	1/10W
R399	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S391	1-554-843-11	SWITCH, SLIDE (PANEL OPEN)			
S392	1-572-499-21	SWITCH, TACTIL (PANEL OPEN/CLOSE)			

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X102	1-781-919-11	X TAL (4.332MHz) (AEP, UK)			
**********					
	A-4473-555-A	MAIN R237 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C11	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C12	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C101	1-124-225-11	ELECT	100uF	20%	6.3V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C105	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C106	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C107	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C110	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C113	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C114	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C115	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C116	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C117	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C118	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C119	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C120	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C121	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C122	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C123	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C124	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C125	1-124-589-11	ELECT	47uF	20%	16V
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-128-057-11	ELECT	330uF	20%	6.3V
C128	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C129	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C130	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C131	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C132	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C133	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C134	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C135	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C136	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C137	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C138	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C139	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C140	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C141	1-124-589-11	ELECT	47uF	20%	16V
C142	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C143	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C144	1-128-057-11	ELECT	330uF	20%	6.3V
C145	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C157	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C162	1-126-176-11	ELECT	220uF	20%	10V
C163	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C164	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C165	1-164-348-11	CERAMIC CHIP	0.12uF	10%	25V

Ref. No.	Part No.	Description			Remark
C169	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C401	1-126-767-11	ELECT	1000uF	20%	16V
C402	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C403	1-124-584-00	ELECT	100uF	20%	10V
C404	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C405	1-126-176-11	ELECT	220uF	20%	10V
C406	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C407	1-124-242-00	ELECT	33uF	20%	25V
C409	1-125-972-11	ELECT	100uF	20%	16V
C411	1-125-622-11	DOUBLE LAYER	0.1F		5.5V
C413	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C414	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C417	1-124-225-11	ELECT	100uF	20%	6.3V
C419	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C422	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C423	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C506	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C509	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C516	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C1041	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C1042	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C1091	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C1092	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C1111	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C1112	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C5071	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C5072	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C8011	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C8012	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C8021	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C8022	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C8101	1-126-153-11	ELECT	22uF	20%	6.3V
C8102	1-126-153-11	ELECT	22uF	20%	6.3V
		< CONNECTOR >			
* CP101	1-770-114-11	SOCKET, CONNECTOR 16P			
CP102	1-568-164-11	CONNECTOR, FPC (1.0MM) (ZIF) 8P			
CP103	1-568-165-11	CONNECTOR, FPC 22P			
* CP501	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CP502	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
* CP503	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CP504	1-560-060-00	PIN, CONNECTOR 2P			
		< DIODE >			
D101	8-719-400-20	DIODE MA152WA-TX			
D102	8-719-400-20	DIODE MA152WA-TX			
D401	8-719-400-20	DIODE MA152WA-TX			
D404	8-719-400-20	DIODE MA152WA-TX			
D406	8-719-400-20	DIODE MA152WA-TX			
D409	8-719-400-20	DIODE MA152WA-TX			
D516	8-719-400-20	DIODE MA152WA-TX			
D517	8-719-400-20	DIODE MA152WA-TX			
D521	8-719-400-20	DIODE MA152WA-TX			
D801	8-719-400-20	DIODE MA152WA-TX			

Ref. No.	Part No.	Description			Remark
		< SHORT >			
J404	1-216-295-00	SHORT	0		
		< COIL/SHORT >			
L101	1-410-509-11	INDUCTOR	10uH		
L102	1-469-780-11	FERRITE	0uH		
L103	1-469-780-11	FERRITE	0uH		
L401	1-216-295-00	SHORT	0		
L402	1-216-295-00	SHORT	0		
L503	1-469-780-11	FERRITE	0uH		
L802	1-469-780-11	FERRITE	0uH		
		< TRANSISTOR >			
Q101	8-729-903-46	TRANSISTOR	2SB1132-P		
Q102	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q103	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q401	8-729-927-50	TRANSISTOR	2SB1182-Q		
Q402	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q403	8-729-044-09	TRANSISTOR	2SD2153T100V		
Q404	8-729-922-34	TRANSISTOR	2SD1758F5-QR		
Q411	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q412	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q413	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q414	8-729-922-34	TRANSISTOR	2SD1758F5-QR		
Q501	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q502	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q521	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q522	8-729-120-28	TRANSISTOR	2SC2412K-QR		
Q8011	8-729-015-39	TRANSISTOR	DTC323TK		
Q8012	8-729-015-39	TRANSISTOR	DTC323TK		
		< RESISTOR/COIL >			
R2	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3	1-216-073-00	METAL CHIP	10K	5%	1/10W
R4	1-216-097-00	RES, CHIP	100K	5%	1/10W
R5	1-216-097-00	RES, CHIP	100K	5%	1/10W
R6	1-216-097-00	RES, CHIP	100K	5%	1/10W
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W
R10	1-216-089-00	RES, CHIP	47K	5%	1/10W
R11	1-216-089-00	RES, CHIP	47K	5%	1/10W
R12	1-216-089-00	RES, CHIP	47K	5%	1/10W
R13	1-216-089-00	RES, CHIP	47K	5%	1/10W
R14	1-216-089-00	RES, CHIP	47K	5%	1/10W
R15	1-216-041-00	METAL CHIP	470	5%	1/10W
R17	1-414-234-22	INDUCTOR CHIP	0uH		
R18	1-216-295-00	SHORT	0		
R101	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R102	1-216-081-00	METAL CHIP	22K	5%	1/10W
R103	1-216-100-00	RES, CHIP	130K	5%	1/10W
R105	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R106	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R109	1-216-024-00	RES, CHIP	91	5%	1/10W
R110	1-216-085-00	METAL CHIP	33K	5%	1/10W
R111	1-216-099-00	METAL CHIP	120K	5%	1/10W
R112	1-216-085-00	METAL CHIP	33K	5%	1/10W
R113	1-216-080-00	METAL CHIP	20K	5%	1/10W
R114	1-216-085-00	METAL CHIP	33K	5%	1/10W

MAIN R237

Ref. No.	Part No.	Description			Remark
R115	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-097-00	RES, CHIP	100K	5%	1/10W
R117	1-216-121-00	RES, CHIP	1M	5%	1/10W
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W
R119	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R120	1-216-107-00	METAL CHIP	270K	5%	1/10W
R121	1-216-084-00	METAL CHIP	30K	5%	1/10W
R122	1-216-084-00	METAL CHIP	30K	5%	1/10W
R123	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R124	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R125	1-216-077-00	RES, CHIP	15K	5%	1/10W
R126	1-216-077-00	RES, CHIP	15K	5%	1/10W
R127	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R128	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R129	1-216-084-00	METAL CHIP	30K	5%	1/10W
R130	1-216-084-00	METAL CHIP	30K	5%	1/10W
R131	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R132	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R133	1-216-073-00	METAL CHIP	10K	5%	1/10W
R134	1-216-109-00	METAL CHIP	330K	5%	1/10W
R135	1-216-090-00	METAL CHIP	51K	5%	1/10W
R136	1-216-094-00	RES, CHIP	75K	5%	1/10W
R137	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R139	1-216-089-00	RES, CHIP	47K	5%	1/10W
R141	1-216-073-00	METAL CHIP	10K	5%	1/10W
R142	1-216-085-00	METAL CHIP	33K	5%	1/10W
R143	1-216-101-00	METAL CHIP	150K	5%	1/10W
R144	1-216-081-00	METAL CHIP	22K	5%	1/10W
R145	1-216-081-00	METAL CHIP	22K	5%	1/10W
R158	1-216-097-00	RES, CHIP	100K	5%	1/10W
R159	1-216-085-00	METAL CHIP	33K	5%	1/10W
R177	1-216-056-00	RES, CHIP	2K	5%	1/10W
R179	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R180	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R181	1-216-081-00	METAL CHIP	22K	5%	1/10W
R194	1-216-073-00	METAL CHIP	10K	5%	1/10W
R195	1-216-092-00	RES, CHIP	62K	5%	1/10W
R196	1-216-081-00	METAL CHIP	22K	5%	1/10W
R197	1-216-001-00	METAL CHIP	10	5%	1/10W
R199	1-216-073-00	METAL CHIP	10K	5%	1/10W
R200	1-216-085-00	METAL CHIP	33K	5%	1/10W
R401	1-216-037-00	METAL CHIP	330	5%	1/10W
R402	1-216-091-00	METAL CHIP	56K	5%	1/10W
R403	1-216-049-11	RES, CHIP	1K	5%	1/10W
R404	1-216-097-00	RES, CHIP	100K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R406	1-216-105-00	RES, CHIP	220K	5%	1/10W
R407	1-216-089-00	RES, CHIP	47K	5%	1/10W
R408	1-216-097-00	RES, CHIP	100K	5%	1/10W
R409	1-216-097-00	RES, CHIP	100K	5%	1/10W
R411	1-216-033-00	METAL CHIP	220	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-043-00	RES, CHIP	560	5%	1/10W
R414	1-216-097-00	RES, CHIP	100K	5%	1/10W
R415	1-216-097-00	RES, CHIP	100K	5%	1/10W
R416	1-216-097-00	RES, CHIP	100K	5%	1/10W
R417	1-216-033-00	METAL CHIP	220	5%	1/10W
R418	1-216-049-11	RES, CHIP	1K	5%	1/10W
R419	1-216-105-00	RES, CHIP	220K	5%	1/10W
R420	1-216-121-00	RES, CHIP	1M	5%	1/10W
R422	1-216-077-00	RES, CHIP	15K	5%	1/10W
R423	1-216-037-00	METAL CHIP	330	5%	1/10W
R506	1-216-073-00	METAL CHIP	10K	5%	1/10W
R507	1-216-073-00	METAL CHIP	10K	5%	1/10W
R508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R509	1-216-073-00	METAL CHIP	10K	5%	1/10W
R510	1-216-073-00	METAL CHIP	10K	5%	1/10W
R511	1-216-073-00	METAL CHIP	10K	5%	1/10W
R512	1-216-073-00	METAL CHIP	10K	5%	1/10W
R513	1-216-073-00	METAL CHIP	10K	5%	1/10W
R516	1-216-075-00	METAL CHIP	12K	5%	1/10W
R517	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R518	1-216-097-00	RES, CHIP	100K	5%	1/10W
R519	1-216-073-00	METAL CHIP	10K	5%	1/10W
R524	1-216-018-00	METAL CHIP	51	5%	1/10W
R526	1-216-073-00	METAL CHIP	10K	5%	1/10W
R527	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R528	1-216-121-00	RES, CHIP	1M	5%	1/10W
R529	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R530	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R531	1-216-121-00	RES, CHIP	1M	5%	1/10W
R532	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R536	1-216-089-00	RES, CHIP	47K	5%	1/10W
R537	1-216-089-00	RES, CHIP	47K	5%	1/10W
R538	1-216-089-00	RES, CHIP	47K	5%	1/10W
R539	1-216-089-00	RES, CHIP	47K	5%	1/10W
R540	1-216-089-00	RES, CHIP	47K	5%	1/10W
R541	1-216-089-00	RES, CHIP	47K	5%	1/10W
R542	1-216-089-00	RES, CHIP	47K	5%	1/10W
R543	1-216-089-00	RES, CHIP	47K	5%	1/10W
R545	1-216-041-00	METAL CHIP	470	5%	1/10W
R548	1-216-089-00	RES, CHIP	47K	5%	1/10W
R549	1-216-073-00	METAL CHIP	10K	5%	1/10W
R551	1-216-109-00	METAL CHIP	330K	5%	1/10W
R552	1-216-097-00	RES, CHIP	100K	5%	1/10W
R553	1-216-095-00	METAL CHIP	82K	5%	1/10W
R554	1-216-049-11	RES, CHIP	1K	5%	1/10W
R563	1-216-073-00	METAL CHIP	10K	5%	1/10W
R564	1-216-041-00	METAL CHIP	470	5%	1/10W
R565	1-216-041-00	METAL CHIP	470	5%	1/10W
R570	1-216-034-00	METAL CHIP	240	5%	1/10W
R571	1-216-019-00	METAL CHIP	56	5%	1/10W
R572	1-216-027-00	METAL CHIP	120	5%	1/10W
R573	1-216-023-00	METAL CHIP	82	5%	1/10W
R602	1-216-033-00	METAL CHIP	220	5%	1/10W
R603	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R700	1-216-049-11	RES, CHIP	1K	5%	1/10W
R701	1-216-097-00	RES, CHIP	100K	5%	1/10W
R702	1-216-049-11	RES, CHIP	1K	5%	1/10W
R703	1-216-049-11	RES, CHIP	1K	5%	1/10W
R704	1-216-049-11	RES, CHIP	1K	5%	1/10W
R705	1-216-049-11	RES, CHIP	1K	5%	1/10W
R706	1-216-049-11	RES, CHIP	1K	5%	1/10W
R707	1-216-049-11	RES, CHIP	1K	5%	1/10W
R708	1-216-049-11	RES, CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R709	1-216-049-11	RES, CHIP	1K	5%	1/10W
R710	1-216-049-11	RES, CHIP	1K	5%	1/10W
R711	1-216-049-11	RES, CHIP	1K	5%	1/10W
R712	1-216-049-11	RES, CHIP	1K	5%	1/10W
R713	1-216-049-11	RES, CHIP	1K	5%	1/10W
R714	1-216-049-11	RES, CHIP	1K	5%	1/10W
R8011	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8012	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8021	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8022	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8031	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8032	1-216-075-00	METAL CHIP	12K	5%	1/10W
R8081	1-216-043-00	RES, CHIP	560	5%	1/10W
R8082	1-216-043-00	RES, CHIP	560	5%	1/10W
R8091	1-216-097-00	RES, CHIP	100K	5%	1/10W
R8092	1-216-097-00	RES, CHIP	100K	5%	1/10W
R8101	1-216-295-00	SHORT	0		
R8102	1-216-295-00	SHORT	0		
		< CONNECTOR >			
* TP101		PIN, CONNECTOR 5P			
		< IC >			
U101	8-752-076-96	IC CXA2521AQ			
U102	8-752-386-85	IC CXD2587Q			
U103	8-759-082-61	IC TC4W53FU			
U105	8-759-675-71	IC TA8409F			
U106	8-759-675-71	IC TA8409F			
U107	8-759-675-71	IC TA8409F			
U180	8-759-710-55	IC NJM2100M			
U401	8-759-054-12	IC PQ09RF11			
U404	8-759-673-97	IC BA5972FP			
U501	8-759-673-93	IC uPD78058FGC-A80-8BT			
U502	8-759-200-79	IC TC4049BF			
		< VARIABLE RESISTOR >			
VR102	1-237-606-11	RES, ADJ, CARBON 22K			
		< VIBRATOR >			
X101	1-767-226-11	VIBRATOR, CRYSTAL (16.9344MHz)			
X501	1-577-121-11	VIBRATOR, CRYSTAL (4.194304MHz)			
		< DIODE >			
ZD401	8-719-114-37	DIODE RD5.6JSAB2			
ZD402	8-719-114-50	DIODE RD7.5JSAB3			
ZD403	8-719-114-42	DIODE RD6.2JSAB3			
ZD404	8-719-114-37	DIODE RD5.6JSAB2			
ZD405	8-719-114-37	DIODE RD5.6JSAB2			
ZD502	8-719-114-42	DIODE RD6.2JSAB3			
ZD503	8-719-114-42	DIODE RD6.2JSAB3			
ZD521	8-719-114-30	DIODE RD5.1JSAB2			

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Ref. No.	Part No.	Description			Remark
	A-4473-562-A	PHOTO JACK BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C200	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C2001	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< DIODE >			
D200	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
PH200	8-749-923-04	IC TOTX178A (CD DIGITAL OUT (OPTICAL))			
		< RESISTOR >			
R200	1-216-049-11	RES, CHIP	1K	5%	1/10W
R2001	1-216-033-00	METAL CHIP	220	5%	1/10W

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	A-4473-563-A	POWER SUPPLY BOARD, COMPLETE			
		**********			
	4-229-235-01	TERMINAL PIN (K)			
	4-229-247-01	BIND TYPE (A)			
	4-229-249-01	PLASTIC SCREW M2.6X6			
	4-229-255-01	SCREW (3X8), TAPPING			
	4-229-256-01	SCREW (3X6), TAPPING			
	7-621-773-86	SCREW +B 2.6X4			
	7-682-549-04	SCREW +B 3X10			
	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
⚠C1	1-131-983-11	FILM	0.1uF		250V
⚠C2	1-131-983-11	FILM	0.1uF		250V
⚠C3	1-113-896-11	CERAMIC	220PF	10%	250V
⚠C4	1-113-896-11	CERAMIC	220PF	10%	250V
⚠C5	1-113-896-11	CERAMIC	220PF	10%	250V
C6	1-135-738-11	ELECT	220uF		400V
C8	1-104-572-11	CERAMIC	0.0022uF	10%	2KV
C9	1-162-290-31	CERAMIC	470PF	10%	50V
C10	1-162-303-11	CERAMIC	0.0033uF	20%	16V
C11	1-107-909-11	ELECT	47uF	20%	50V
C12	1-162-115-00	CERAMIC	330PF	10%	2KV
C13	1-104-568-11	CERAMIC	470PF	10%	2KV
C15	1-135-737-21	ELECT	3300uF		25V
C16	1-111-044-11	ELECT	2200uF	20%	16V
C17	1-126-316-51	ELECT	470uF	20%	16V
C18	1-164-159-11	CERAMIC	0.1uF		50V
C20	1-164-159-11	CERAMIC	0.1uF		50V
C21	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C22	1-111-068-11	ELECT	1500uF	20%	25V
C23	1-124-360-00	ELECT	1000uF	20%	16V
C24	1-126-044-11	ELECT	1uF	20%	50V
C25	1-126-335-11	ELECT	220uF	20%	10V
C26	1-126-335-11	ELECT	220uF	20%	10V
C27	1-104-568-11	CERAMIC	470PF	10%	2KV
C28	1-104-568-11	CERAMIC	470PF	10%	2KV
C29	1-126-052-11	ELECT	100uF	20%	16V
C30	1-126-052-11	ELECT	100uF	20%	16V

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POWER SUPPLY | POWER SW | RELAY

Ref. No.	Part No.	Description				Remark
C31	1-117-703-11	CERAMIC	0.0047uF			250V
		< DIODE >				
D1	8-719-070-53	DIODE	11E4-TA1B2			
D2	8-719-070-53	DIODE	11E4-TA1B2			
D3	8-719-070-53	DIODE	11E4-TA1B2			
D4	8-719-070-53	DIODE	11E4-TA1B2			
D5	8-719-911-19	DIODE	1SS133			
D6	8-719-200-91	DIODE	11EQS10-TA1			
D7	8-719-200-91	DIODE	11EQS10-TA1			
D8	8-719-109-97	DIODE	MTZJ-6.8B			
D9	8-719-210-21	DIODE	11EQS04			
D10	8-719-076-45	DIODE	FSQ10A06			
D11	8-719-921-75	DIODE	MTZN-T-77-10B			
D12	8-719-924-05	DIODE	MTZN-T-77-20B			
D13	8-719-210-21	DIODE	11EQS04			
D14	8-719-210-21	DIODE	11EQS04			
D15	8-719-210-21	DIODE	11EQS04			
D16	8-719-911-19	DIODE	1SS133			
		< FERRITE BEAD >				
FB1	1-412-473-21	FERRITE BEAD INDUCTOR				
		< IC >				
IC1	8-749-016-64	IC	STR-F6674-LF1352			
IC2	8-749-013-68	IC	PS2561-1-D			
IC3	8-759-644-34	IC	SEN013E			
IC4	8-749-013-68	IC	PS2561-1-D			
IC5	8-759-288-53	IC	LA5617			
		< TRANSFORMER/COIL >				
⚠L1	1-435-466-11	LINE FILTER TRANS				
L2	1-419-282-11	INDUCTOR	10uH			
L3	1-410-525-11	INDUCTOR	220uH			
L4	1-410-525-11	INDUCTOR	220uH			
		< TRANSISTOR >				
Q1	8-729-265-52	TRANSISTOR	2SC2655-Y			
Q2	8-729-374-02	TRANSISTOR	2SA1020-Y			
Q3	8-729-026-43	TRANSISTOR	2SA933A-R			
Q4	8-729-194-57	TRANSISTOR	2SC945-P			
Q5	8-729-194-57	TRANSISTOR	2SC945-P			
Q6	8-729-050-26	TRANSISTOR	2SA1757F			
Q7	8-729-173-36	TRANSISTOR	2SA733-Q			
		< RESISTOR >				
R1	1-249-426-11	CARBON	5.6K	5%	1/4W	
R2	1-249-415-11	CARBON	680	5%	1/4W	
⚠R3	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
⚠R4	1-215-903-11	METAL OXIDE	68K	5%	2W	F
R5	1-247-895-00	CARBON	470K	5%	1/4W	
R6	1-249-391-11	CARBON	6.8	5%	1/4W	
R7	1-247-863-11	CARBON	22K	5%	1/4W	
R8	1-249-422-11	CARBON	2.7K	5%	1/4W	
R9	1-249-419-11	CARBON	1.5K	5%	1/4W	
R10	1-249-401-11	CARBON	47	5%	1/4W	
R11	1-249-425-11	CARBON	4.7K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R12	1-249-431-11	CARBON	15K	5%	1/4W	
R13	1-249-415-11	CARBON	680	5%	1/4W	
R14	1-249-421-11	CARBON	2.2K	5%	1/4W	
R15	1-249-424-11	CARBON	3.9K	5%	1/4W	
R16	1-247-881-00	CARBON	120K	5%	1/4W	
R17	1-249-439-11	CARBON	68K	5%	1/4W	
R22	1-249-420-11	CARBON	1.8K	5%	1/4W	
R23	1-249-429-11	CARBON	10K	5%	1/4W	
R24	1-249-421-11	CARBON	2.2K	5%	1/4W	
R25	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R26	1-219-119-21	FUSIBLE	0.1	5%	1/4W	F
⚠R27	1-219-119-21	FUSIBLE	0.1	5%	1/4W	F
R28	1-249-437-11	CARBON	47K	5%	1/4W	
R29	1-249-421-11	CARBON	2.2K	5%	1/4W	
⚠R30	1-219-119-21	FUSIBLE	0.1	5%	1/4W	F
		< TRANSFORMER >				
T901	1-435-160-11	TRANSFORMER, CONVERTER				
		< THERMISTOR >				
TH1	1-803-806-31	THERMISTOR, NTC				
**********						
	1-678-387-11	POWER SW BOARD				
		**********				
		< SWITCH >				
S615	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (I/⏻)				
**********						
	A-4473-565-A	RELAY BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C527	1-126-968-11	ELECT	100uF	20%	50V	
C544	1-126-964-11	ELECT	10uF	20%	50V	
C545	1-126-964-11	ELECT	10uF	20%	50V	
C546	1-126-959-11	ELECT	0.47uF	20%	50V	
C5011	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C5022	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
		< CONNECTOR >				
* CN502	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P				
CN503	1-794-491-11	SOLDER HEADER 2P (RIGHT SPEAKER)				
CN504	1-794-491-11	SOLDER HEADER 2P (LEFT SPEAKER)				
* CN505	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P				
		< DIODE >				
D505	8-719-820-58	DIODE	1SS177			
D506	8-719-820-58	DIODE	1SS177			
D507	8-719-820-58	DIODE	1SS177			
D512	8-719-820-58	DIODE	1SS177			
D513	8-719-820-58	DIODE	1SS177			
		< TRANSISTOR >				
Q501	8-729-401-95	TRANSISTOR	2SB945-P			
Q504	8-729-048-99	TRANSISTOR	2SK2541-T			
Q505	8-729-048-99	TRANSISTOR	2SK2541-T			

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Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R509	1-216-222-00	RES, CHIP	10K	5%	1/8W
R510	1-216-222-00	RES, CHIP	10K	5%	1/8W
R538	1-216-242-00	RES, CHIP	68K	5%	1/8W
R543	1-216-238-91	RES, CHIP	47K	5%	1/8W
R544	1-216-230-00	RES, CHIP	22K	5%	1/8W
R545	1-216-230-00	RES, CHIP	22K	5%	1/8W
R546	1-216-226-00	RES, CHIP	15K	5%	1/8W
R548	1-216-246-00	RES, CHIP	100K	5%	1/8W
R549	1-216-270-00	RES, CHIP	1M	5%	1/8W
R551	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
		< RELAY >			
RY501	1-755-067-11	RELAY			
**********					
	A-4473-559-A	TACT SW BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN602	1-794-485-11	CONNECTOR 12P			
		< LED >			
LED651	8-719-080-10	LED KM-23SGC (DISC 1)			
LED652	8-719-080-10	LED KM-23SGC (DISC 2)			
LED653	8-719-080-10	LED KM-23SGC (DISC 3)			
LED654	8-719-080-10	LED KM-23SGC (DISC 4)			
LED655	8-719-080-10	LED KM-23SGC (DISC 5)			
LED656	8-719-080-09	LED KM-23SGYC (▶II)			
		< RESISTOR >			
R651	1-216-025-00	RES, CHIP	100	5%	1/10W
R652	1-216-025-00	RES, CHIP	100	5%	1/10W
R653	1-216-025-00	RES, CHIP	100	5%	1/10W
R654	1-216-025-00	RES, CHIP	100	5%	1/10W
R655	1-216-025-00	RES, CHIP	100	5%	1/10W
R656	1-216-025-00	RES, CHIP	100	5%	1/10W
R657	1-216-025-00	RES, CHIP	100	5%	1/10W
R671	1-216-045-00	METAL CHIP	680	5%	1/10W
R672	1-216-047-00	RES, CHIP	820	5%	1/10W
R673	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R674	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R675	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R676	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R677	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R678	1-216-045-00	METAL CHIP	680	5%	1/10W
R679	1-216-047-00	RES, CHIP	820	5%	1/10W
R680	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R681	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R682	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R683	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R684	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
		< SWITCH >			
S601	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (FUNCTION)			
S602	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (DISC 1)			
S603	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (DISC 2)			
S604	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (DISC 3)			
S605	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (DISC 4)			
S606	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (DISC 5)			
S607	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (VOLUME +)			
S608	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (TUNER/BAND)			
S609	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (▶II)			
S610	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (■)			
S611	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (I◀◀ ◀◀, TUNER -)			
S612	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (▶▶I ▶▶, TUNER +)			
S613	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (⏏)			
S614	1-572-595-11	SWITCH, TACTIL (REFLOW TYPE) (VOLUME -)			
**********					
		MISCELLANEOUS			
		**********			
11	8-719-070-85	HAND SENSOR KU381-40			
17	1-792-758-11	FFC (26CORE)			
53	1-500-386-11	FILTER, CLAMP (FERRITE CORE)			
60		FFC (15CORE)			
61	1-693-473-21	TUNER PACK (FM/AM)			
67	1-792-757-11	AC CORD (POWER)			
201	4-229-268-01	PCB TRA ASSY V619			
202	1-792-692-11	WIRE FLEXIBLE BOARD			
⚠212	1-251-883-11	OPTICAL PICK-UP KSS-540A			
213	1-678-133-11	PICK-UP FLEXIBLE BOARD			
D701	8-719-991-33	DIODE 1SS133T-77			
D702	8-719-991-33	DIODE 1SS133T-77			
D703	8-719-991-33	DIODE 1SS133T-77			
D704	8-719-991-33	DIODE 1SS133T-77			
D705	8-719-991-33	DIODE 1SS133T-77			
D706	8-719-991-33	DIODE 1SS133T-77			
D707	8-719-991-33	DIODE 1SS133T-77			
D708	8-719-991-33	DIODE 1SS133T-77			
D801	8-719-070-85	DIODE KU381-4			
M1	1-763-519-11	MOTOR (SLED)			
M2	4-229-269-01	DISC MOTOR CH ASSY (SPINDLE)			
M3	4-229-284-01	STC MOTOR SL ASSY (STOCKER)			
M4	4-229-297-01	LDG MOTOR SL ASSY (LOADING)			
M5	4-229-298-01	UD MOTOR SL ASSY (UP/DOWN)			
M391	X-4953-037-1	MOTOR PULLEY ASSY (DOOR)			
**********					
		**********			
		HARDWARE LIST			
		**********			
#1	7-685-533-14	SCREW +BTP 2.6X6 TYPE2 N-S			
#2	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S			
#3	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S			
#4	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S			
#5	7-682-547-09	SCREW +B 3X6			
#6	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S			
#7	7-682-546-04	SCREW +B 3X5			
#8	7-684-024-04	N 4, TYPE 2			
#9	7-685-872-09	SCREW +BVTT 3X8 (S)			
#10	7-621-770-87	SCREW +P 2.6X5			
#11	7-627-553-17	PRECISION SCREW +P 2X2 TYPE3			

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Ref. No.	Part No.	Description	Remark
#12	7-627-852-08	SCREW, PRECISION +P 1.7X2.5	
#13	7-621-775-08	SCREW +P 2.6X3	
#14	7-621-284-30	SCREW +P 2.6X8	
#15	7-621-259-25	SCREW +P 2.6X4	
#16	7-627-850-08	SCREW, PRECISION +P 1.4X2	
#17	7-627-852-18	SCREW, PRECISION +P 1.7X4 TYPE3	
#18	7-685-546-19	SCREW +BTP 3X8 TYPE2 N-S	
#19	7-685-547-14	SCREW +BTP 3X10 TYPE2 N-S	
#20	7-685-902-11	SCREW +PWH 2.6X6	

Sony Corporation
Home Audio Division Company

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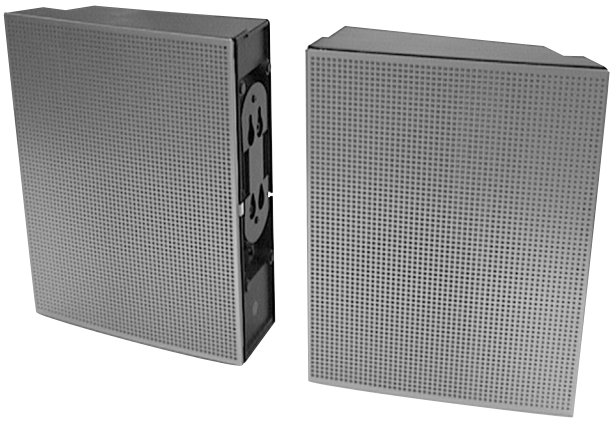
SS-CLS1

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



- SS-CLS1 is the speaker system in CMT-LS1.

SPECIFICATIONS

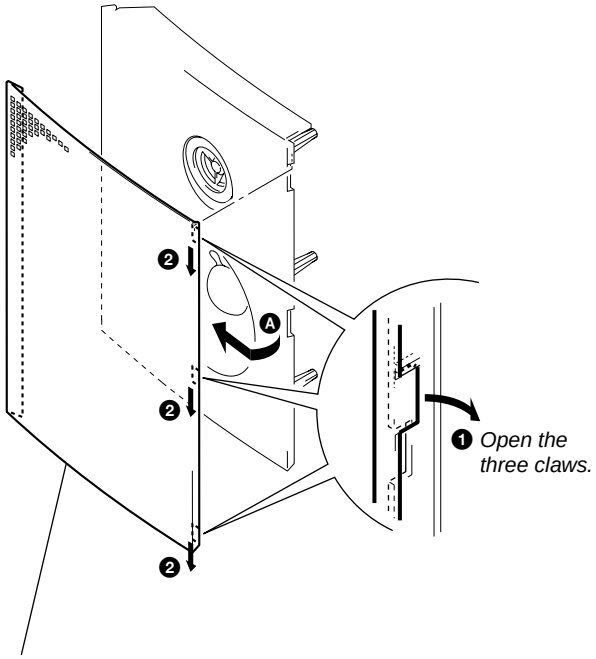
Speaker system	2-way, bass-reflex type
Speaker units	
Woofer:	10 cm dia., cone type
Tweeter:	2.5 cm dia., balanced drive
Impedance	4 ohms
Dimensions	192 × 251 × 73 mm (w/h/d, incl. projecting parts and controls)
Mass	Approx. 2.5 kg net per speaker

Designs and specifications are subject to change without notice.

SERVICING NOTES

Note: Follow the disassembly procedure in the numerical order given.

SPK. OVERLAY

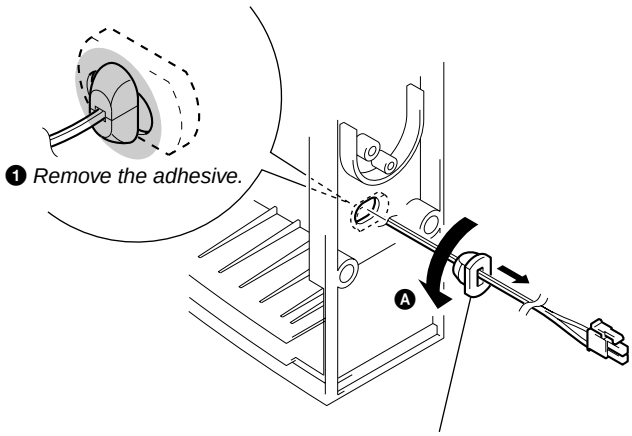


❶ *Open the three claws.*

❸ *Remove the SPK. overlay in the direction of arrow Ⓐ.*

SPK. WIRE BUSHING

Note: When installing SPK. WIRE BUSHING, fix it with SONY BOND (SC608LV) to prevent from leaking sound.



❶ *Remove the adhesive.*

❷ *Rotate SPK. WIRE BUSHING 90° in the direction of arrow Ⓐ then pull it out.*

SPEAKER SYSTEM

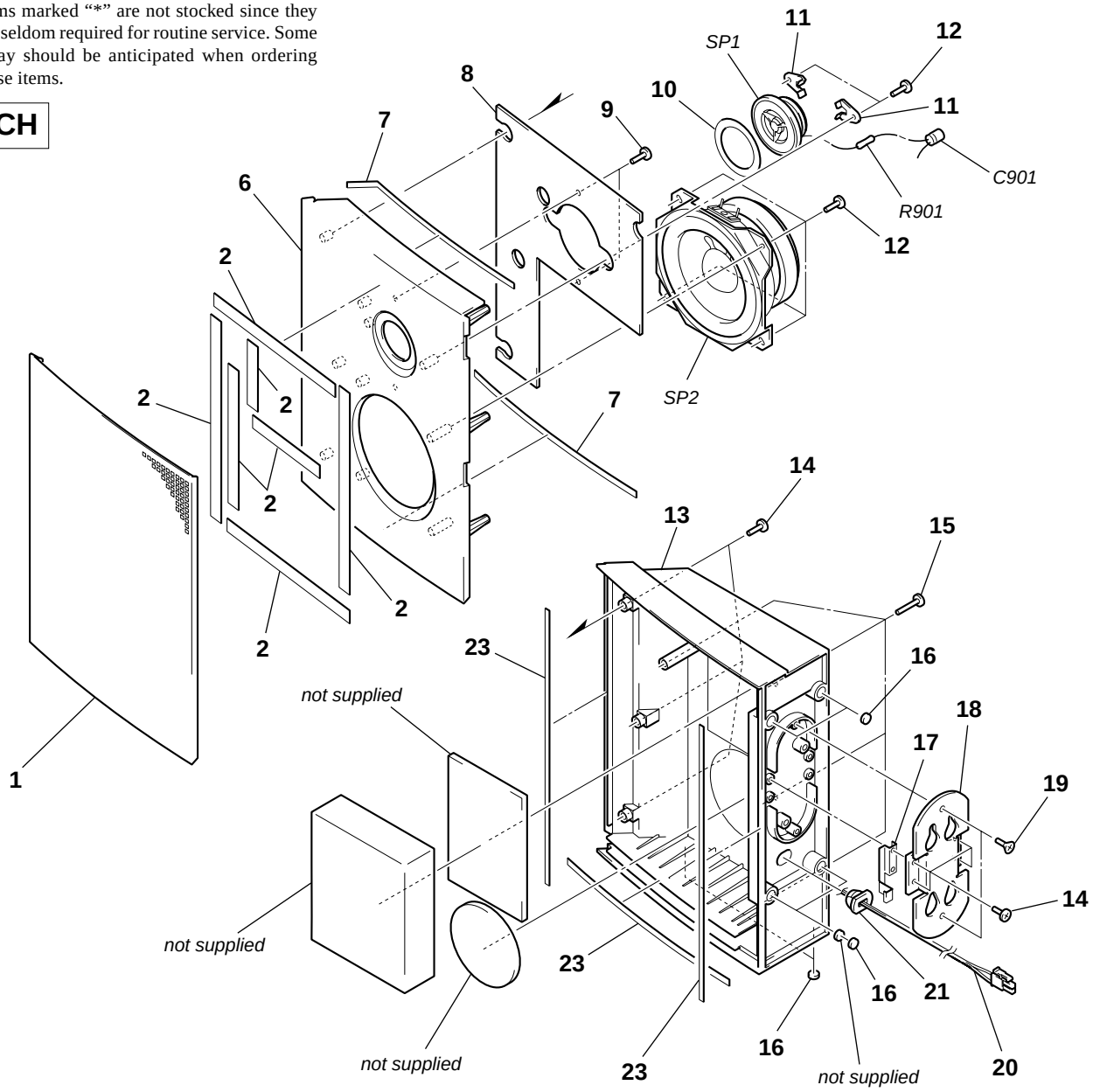
SONY®

EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

L-CH



Ref. No.	Part No.	Description	Remark
1	X-4953-048-1	SPK PANEL (R) ASSY	
1	X-4953-049-1	SPK PANEL (L) ASSY	
2	4-229-158-01	SP. FRONT CUSHION (A)	
6	4-229-142-01	SPK PANEL (L)	
6	4-229-168-01	SPK PANEL (R)	
7	4-229-157-01	SP. SEAL	
8	4-229-161-01	SP PANEL WEIGHT	
9	4-229-353-01	SCREW 3X8	
10	4-229-152-01	SPK SPACER	
11	4-229-153-01	TWEETER HOLDER	
12	7-685-547-14	SCREW +BTP 3X10 TYPE2 N-S	
13	4-229-141-01	SPK CABINET (L)	
13	4-229-167-01	SPK CABINET (R)	
14	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S	
15	7-685-650-79	SCREW +BTP 3X16 TYPE2 N-S	

Ref. No.	Part No.	Description		Remark
16	4-229-150-01	SPK RUBBER		
17	4-229-160-01	SP EARTH LUG L		
18	4-229-148-01	SP. HOLDER		
19	4-229-352-01	SCREW 3X10		
20	1-960-567-11	HARNESS		
21	4-229-151-01	SPK. WIRE BUSHING		
23	4-229-154-01	SP. SEAL		
25	4-229-163-01	SP. DAMPER (A)		
26	4-229-164-01	SP. DAMPER (B)		
27	4-229-165-01	SOUND ABSORBER		
C901	1-135-903-11	ELECT	2.2uF	100V
R901	1-216-375-11	METAL OXIDE	3.3	2W
SP1	1-529-746-11	SPEAKER TWEETER		
SP2	1-529-745-11	SPEAKER WOOFER		

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